THE UNIVERSITY OF ALBERTA

QUALIFICATIONS, RESPONSIBILITIES, AND PROGRAMS, OF SENIOR HIGH SCHOOL PHYSICAL EDUCATION TEACHERS IN THE PROVINCE OF ALBERTA, CANADA

by

© NESTOR N. KORCHINSKY

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES

IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE

OF MASTER OF ARTS

FACULTY OF PHYSICAL EDUCATION

EDMONTON, ALBERTA

MAY, 1967

UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES

The undersigned certify that they have read, and recommend to the Faculty of Graduate Studies for acceptance, a thesis entitled "Qualifications, Responsibilities, and Programs, of Senior High School Physical Education Teachers in the Province of Alberta, Canada," submitted by Nestor N. Korchinsky in partial fulfillment of the requirements for the degree of Master of Arts.

ABSTRACT

The problem of this study was to determine the qualifications, responsibilities, and programs of physical education teachers in the Province of Alberta, Canada. It was also anticipated that the study would depict the present standard of physical education in the three areas, isolating weaknesses of the program in the province.

For the purpose of this study, sixty-six senior high schools were randomly selected from the two hundred and eighty-four schools in the entire province. The sample was selected from three main categories into which all of the schools in the province were placed according to the grade levels taught within the school building.

Three hypotheses were tested, of which two were rejected and one accepted. Firstly, there was found to be no relationship between the qualifications of teachers and the programs they incorporated; the higher qualification had no bearing on the diversity of the program. Likewise, there was no relationship between qualifications and responsibilities; higher qualifications had no influence, statistically, on the likelihood of intramural and interschool athletics being a part of the school program. The third hypothesis stated that a relationship would exist between the qualifications, responsibilities and programs of physical education teachers from one category to another. From the study it was found that Category I(S), containing all schools teaching only senior high school grades (10-12) in the one building, had the highest standard, followed closely by Category II(JS), made up of schools

teaching only junior and senior grades (7-12) in the one school building. The lowest standard was found in Category III(EJS), containing the schools teaching all levels of education (grades 1-12) in the one school building.

Whereas the quality of the physical education program in the first two categories is quite high, the third category is far below the standards set by the other two. Further improvement is required for the third category to raise its achievement to a satisfactory level.

ACKNOWLEDGEMENTS

I would like to extend my gratitude to the many people who assisted myself in carrying out this study to its conclusion.

In particular, a special word of thanks to the members of my committee. They are Dr. W. D. Smith (Chairman), Dr. R. M. Pike, and Mr. H. J. McLachlin. In spite of their own obligations, they found the necessary time to help with this study, for which I am very grateful.

Also, to my wife, who, through the many hours of work and frustration, was always reassuring and confident. For this I admire and love her very much.

Finally, to all the respondents, my appreciation for the time they spent on providing information for this research and I hope that the findings in itself justify the formulation of this study.

TABLE OF CONTENTS

LIST OF TABLES

CHAPTER I

STATEMENT OF THE PROBLEM

Introduction

The status of physical education as a profession is recognized as an integral part of general education. With this recognition there is always a challenge to develop new ideas and plans to increase the effectiveness of the program. Knowing that the success or failure of any educational program will be determined by teachers themselves, there is an attempt being made to learn more about the educators of physical education.

Parkam, writing on the importance of evaluation, states (35:1):

> In order to determine the degree of success or failure of any program of education, there must be some form of evaluation. Programs of physical education as an accepted phase of general education, therefore, need to be subjected to continuous appraisal. Without evaluation, educators are forced to rely on guesswork in their efforts to provide an effective physical education program.

According to Kerker's study on teacher preparation, educational institutions in charge of training teachers, should be responsible for such investigations (30:1).

It can be argued that having the task of qualifying individuals as teachers, these institutions should determine the actual teaching conditions in the schools and apply their finding to their own courses of study. In this way, prospective teachers may be taught to avoid problematic situations which occur in the teaching profession and, also, to be familiar with various ways that programs may be adapted to meet

the needs of a school environment. Furthermore, investigations might stimulate professionally those physical education teachers already in the field.

Parkam in his study of physical education in white secondary schools of Arkansas stated that evaluation was a necessity in order to identify program strengths and weaknesses and plan courses of action toward program improvement (35:9).

Research in physical education programs and teacher's qualifications in the Province of Alberta are quite limited. To the writer's knowledge only four studies have been completed in this particular field of investigation during the past twenty-five years.

Eriksson (11) did the first of the four studies in Alberta physical education, completing a survey of physical education and health in representative one-roomed schools in Alberta. Having taken place in 1943, this study is outdated as far as depicting present-day conditions of schools is concerned.

In 1948, Panton (34) made a study of intramurals in the four western provinces of Canada. This study is also outdated and delimited in a much too narrow scope to furnish evidence on the physical education programs of today.

However, McLachlin (25), in 1952, did the first comprehensive survey of the physical education curriculum, facilities, and administrative organizations in the city, senior high schools in Alberta. This study was followed by a similar survey made by Grierson (15) in 1955.

Since 1955, however, no other study has been completed to investigate all the areas which are covered in the scope of the paper presented.

The Problem

In each of the four studies carried out by Eriksson (11), Panton (34), McLachlin (25), and Grierson (15), attention was drawn to the many inadequacies of the existing programs in physical education. From their recommendations and conclusions, the four investigators urged that more specially trained teachers be employed to conduct the physical education program in the schools. McLachlin went on to infer that the programs initiated within the schools under qualified physical education teachers would be more varied than those programs initiated under non-qualified physical education teachers (25:63). Furthermore, attention was drawn to the need of better facilities to accommodate a more varied program.

If those were the conditions which existed in the period prior to 1955, what are the present conditions? Has physical education progressed in qualifying more teachers, offering more activities in their programs and expanding facilities? What are the responsibilities of the physical education teacher in the school and in what way, if any, does this affect the program of physical education?

In drawing conclusions about the status of physical education in the total number of schools in the province, there has been no subsequent attempt to classify or to relate at what level of the population the strength of the program lies, and at what part the weaknesses exist.

Therefore, the purpose of this study is to examine the physical education programs and teacher's qualifications in selected senior high schools of Alberta and in turn to determine where the strengths and

weaknesses of the programs lie.

Because a survey of physical education facilities was recently completed by Moser (28) in the senior high schools of Alberta, it has been omitted from the present survey.

The problem, then, is to determine "Qualifications, Responsibilities, and Programs of Senior High School Physical Education Teachers in the Province of Alberta, Canada."

Need for the Study

The study will serve many purposes and may include the following:

1. To provide a master list of duties for which the physical education teacher is responsible at the senior high school level,

2. to provide data readily accessible to university authorities in the evaluation of teacher preparation in the field of physical education,

3. to serve as a means of comparison by allowing one teacher to compare his program in a given area with other school programs in Alberta within a similar category,

4. to determine how closely the teachers of physical education follow the curriculum guide in physical education, and

5. to serve as an indicator of the present-day teaching conditions in Alberta high schools.

Delimitations

In carrying out this study a certain number of restrictions had to be placed as far as the sample and topic were concerned. The

delimitations of the study are:

1. This study investigates only senior high schools (grades 10, 11, and 12 inclusively). Therefore, the findings relate only to this particular level of school education.

2. This study is based on the information received from sixty-six sampled high schools of the two hundred and eighty-four within the Province of Alberta.

3. Facilities will not be dealt with since a study on facilities has been undertaken by another investigator (28).

Limitations

In addition to the delimitations there are a number of limitations based on the results which need to be mentioned. They are the following:

1. Accuracy of the answers given in the questionnaire by the individual principal and the physical education teacher have been received without questioning the integrity of the respondent.

2. It is assumed that the sample chosen is indicative of the total number of high schools in the province.

3. The questionnaires appear to be clearly stated, but confusion as to the meaning of the questions may exist.

4. There may be error in the process of interpreting, collecting, and summarizing the accumulated data.

5. It is conceivable that the programs and responsibilities of physical education teachers may be determined by additional factors which are not being investigated by this paper. It is then recognized that these factors do, in fact, exist, but their effects on this study

cannot be completely controlled.

Hypotheses

The author will investigate the relationship (within the sample of schools drawn) among the three criteria of this study (namely, qualifications, responsibilities, and programs). The extent by which these three criteria relate to each of the three categories which make up the sample will also be investigated. The following hypotheses have been established:

1. That there exists a positive relationship between qualifications of teachers and the extent of physical education program. In other words, the higher the personal qualifications of the teacher, the more diverse the program.

2. That there exists a positive relationship between teacher qualifications and the extent of responsibilities. This implies that in addition to the required program, physical education teachers with greater qualifications will instigate either one or both of the intramural and interschool activities.

3. That programs, qualifications, and responsibilities, will vary according to the classification of school investigated. In the school building in which senior high grades (10-12) only are taught, the three areas will be at their highest standard, whereas, in the school building where all of the elementary, junior and senior grades (1-12) are taught, the standard will be the lowest when compared with the other two categories.

Definitions of Terms

Teacher qualifications: includes number of years of teacher training, type of training, degrees and certificates held.

Programs: the extent of the program will be based on the minimum requirements of the physical education curriculum as set down by the Provincial Department of Education in Edmonton, Alberta (38).

Responsibilities: those activities within the school for which the physical education teacher is responsible. These responsibilities include participation in the intramural, and interschool programs.

Intramurals: those activities and sports provided for the students within the school.

Extramurals: used synonymously with interschool sports referring to those sports activities in which teams representing two or more schools or organizations are involved.

Proportionate stratified sample: the entire number of senior high schools in the Province of Alberta were categorized into three classifications according to those grades taught in the single school building. For example, those schools which taught only senior high school grades (10-12) were summed into one category called Category I(S). The schools teaching both junior high school and senior high school grades (7-12) in another category referred to as Category II (JS). Finally, those schools teaching elementary, junior and senior grades (1-12) in the one building were placed in a third category referred to as Category III (EJS) (Table II, page 20).

From each of the categories, a random selection of twenty per cent of the schools was drawn and this represented the sample used in the study.

CHAPTER II

REVIEW OF THE LITERATURE

To the writer's knowledge during the past twenty-five years only four studies have been completed in the area of evaluation in physical education for the Province of Alberta. Since the justification of this study is based on the findings and recommendations made by Eriksson (11), Panton (34), McLachlin (25), and Grierson (15) their recommendations and/or conclusions will be considered. In addition, a more extensive review of the two most recent studies will be presented.

Eriksson's study (11), on physical education in small rural schools, was very restricted; however, it is significant to note that from his conclusions he made the following recommendations:

1. A greater percentage of teachers should have additional training in physical education, health, and safety.

2. The physical education program should be conducted daily and the period should be no less than twenty-five minutes in length.

3. More time should be spent on dual activities such as horseshoes, croquet, badminton, tennis, and tether ball.

4. More attention should be paid to individual differences.

Eriksson's study was followed by a study completed in 1948 by Panton (34) on intramurals in the four western provinces of Canada. From this study, Panton discovered that there was a definite interest in intramurals, but the two hindrances to its development were lack of

proper facilities and a lack of trained physical education teachers.

From these two studies, three areas of physical education were recommended for change. They were physical education teacher qualifications, programs and facilities.

McLachlin (25) in his summary and conclusions of physical education curriculum, facilities, and administrative organizations in the city schools of Alberta made some interesting observations. It was his opinion, based on results, that the program of activities in the school was below standards and the majority of schools lacked a detailed yearly outline of activities.

Dealing with facilities, he found that there was a lack of outdoor facilities although supplies and equipment for class instruction were adequate.

The interschool and intramural programs were found by McLachlin to have been adequately administered and conducted in the sampled schools.

One drawback noted, however, was the lack of trained physical education teachers.

In his recommendations, McLachlin stated that periodical examinations of the physical education program should be undertaken to assist in the upgrading of the program in Alberta schools. He concluded by saying (25:59):

> It may be said, in a general way, that the survey reveals the fact that physical education in Alberta has glaring instances of inadequate programs of activities, insufficient facilities, and laxity in administrative provisions for achieving the program.

The most recent study by Grierson (15) followed McLachlin and

formulated a number of inferences and conclusions concerning physical education in the Province of Alberta. He found that the general program of physical education was not up to standard.

The program appeared to be deficient in indoor activities and there seemed to have been an absence of individual and dual activities. This was attributed to either a lack of facilities or a lack of qualified personnel.

Most of the schools conducted physical education in their regular school class period time; however, few schools required students to wear gymnasium uniforms while taking physical education.

In many schools the intramural and interschool programs were well conducted and carried out by the school staff at a sacrifice of their own time. Few schools gave any consideration to the extra time spent by the physical education teacher or other staff members assisting with physical education on these activities.

As for qualifications, the majority of the teachers in charge of physical education had acquired no training in this area. Over 40 per cent of the schools had no trained physical education teachers conducting their programs.

The main activity carried out was softball. Facilities, both indoor and outdoor, were not adequate.

Grierson recommended that the following be carried out to assist the development of physical education in Alberta (15:87):

1. That supplementary literature be made available to all school administrators setting down an approved program, listing alternate

activities, information and suggestions as to the planning of the program, and a few flexible example programs to aid each school in planning and conducting a better physical education program.

2. That a higher standard be required by teachers administering physical education. If additional training at the university level is not feasible, carefully standardized and planned, in-service training curriculum could be set up.

3. That interested school administrators reveal the recommended standards for physical education facilities to their respective school boards in the hope that improvement in the facilities may result.

4. That more supervisors trained and experienced in physical education be made available to assist high school administrators in improving or planning their programs. These supervisors in physical education could also serve to conduct sample classes for schools which carry on an in-service training program.

5. That continued surveys be made in this field to assess any progress which may be made. In this regard it is hoped that the author's score card developed for this study will be improved and revised and put to use in a future survey.

It is evident from the above information that at the time the studies were made, there was a lack of qualified teachers, inadequate programs and a need for better facilities.

Provincial Requirements

Program. The Provincial Department of Education provides a suggested program of activities which should be taught in the senior high

school physical education classes (38). Because the programs from each of the sampled schools will be compared to this suggested outline, the requirements as stipulated will be expanded.

There are many activities from which a physical education program may be chosen. In order to ensure that a well-balanced program is carried out, however, two principles have been established. First, six major kinds of activities have been distinguished. It is assumed that an effective program for any one year should include activities from each of the six categories. They are:

(1) Outdoor team games.

(2) Indoor team games.

(3) Individual and Dual Sports.

(4) Tumbling and Gymnastics.

(5) Rhythmics and Dance.

(6) Aquatics (where facilities are available.)

Secondly, certain activities are considered to be of major importance to the physical education program. These are designated as core activities. Each of the six categories of activity either is, in itself a core activity, or includes core activities. In the games categories, two or more activities should be taught.

The core activities are:

(1) Outdoor: Flag Football, Ice Hockey, Softball, Soccer.

(2) Indoor: Basketball, Volleyball.

(3) Dual and Individual: Badminton, Cross Country, Handball, Skating, Track and Field, Wrestling (boys).

(4) Rhythmics and Dance.

(5) Tumbling and Gymnastics.

(6) Aquatics (where facilities are available).

Teacher certification. Because the certification of the teachers in the sample will be investigated, the following are the regulations adhered to within this province (38:25):

> The range of school grades throughout which each type of teacher's certificate whether issued under these or under former regulations is a valid license to teach is shown in the following schedule.

TABLE I

GRADE RANGES OF CERTIFICATES FOR TEACHERS

Certificate	Grades
Junior E	I - IX
Standard E	I - IX
Standard S	IV - XI
Professional	I - XII

The qualifications and programs of each physical education teacher investigated will be compared to the provincial regulations to determine how closely these regulations are being followed.

It is hoped that this study investigating the qualifications, responsibilities, and programs of Alberta physical education teachers will bring out both strengths and weaknesses. If weaknesses of the program do occur, it is hoped that someone will take the initiative towards improving the existing situations. For those who are concerned

with improving the quality of physical education, it is anticipated that this study might become a starting point for further action.

CHAPTER III

METHODS AND PROCEDURES

Methods

To investigate the qualifications, responsibilities, and programs of physical education teachers in the province of Alberta, a questionnaire-interview approach was chosen as the method by which the study was to be carried out.

Because there existed no standardized questionnaire in Canada to evaluate physical education programs, one was devised specifically for this study, for the physical education teacher to complete. In addition, a short questionnaire was devised for the principal. There were a number of problems associated with the drawing up of the questionnaires. Included were the types of questions, methods of answering, make-up of the questionnaire, validity of responses, and length of the questionnaire.

After referring to a number of related studies and having the assembled questionnaires inspected by a number of knowledgeable people, the problems were overcome and the questionnaires finalized.

The structure of the physical education teacher questionnaire was divided into three main areas. The first, called "General Information" investigated the organization of the school and asked questions dealing with teaching procedures, and responsibilities of the physical education teacher. The second main area dealt with the qualifications

of the physical education teacher. This included years of teacher training, experience, degree held, pattern of education, and a number of other pertinent questions. The third and final section of the questionnaire investigated the program of physical education activities that were being conducted in the school. The Required Program as well as the Intramural and Interschool Programs were fully investigated (see Appendix D).

In the questionnaire sent to the principal, questions concerning school procedure and financial support of the physical education program were asked (see Appendix E).

The two questionnaires were sent to the principals of the sampled schools with appropriate instructions (Appendix G). When the forms were completed, the physical education teacher sealed his questionnaire in an envelope and returned it to the principal who, in turn, handed the envelope and his own questionnaire to the writer when he arrived at the school. The questionnaires were then gathered and tabulated and in the write-up of the data, inferences were made between the physical education teacher, his program, and the type of school in which he was teaching.

Nature of Sample

A list of accredited senior high schools was secured from the Provincial Department of Education. The total number of schools in the province from which the sample was drawn, was restricted to those schools containing senior high grades (10-12 inclusive) within the one building.

Each school in the province which met the above-mentioned criteria was then classified according to the following categories:

Category I(S): Containing all schools which taught only senior high school grades (10-12 inclusive) in the one school building.

Category II(JS): Schools teaching both junior high and senior high school grades (7-12 inclusive) in the one building were included in this category.

Category III(EJS): Finally, those schools which taught all of the elementary, junior and senior grades (1-12 inclusive) in the one building were classified in this category.

Before the sample was drawn, all the schools in the province were placed in one of the three categories. From each category a random selection of schools was taken using a Table of Random Numbers (14).

Because of the time required to travel and personally gather the questionnaires, and because the study to be effective had to be completed in a specified period of time, only 20 per cent of the schools from each category was randomly chosen as part of the sample to be investigated.

Once the sample was selected, but before the questionnaires were sent, formal permission had to be obtained from the Provincial Department of Education, the Superintendents of the schools involved in the study (Appendix B), and finally, the cooperation of the sample school principals was sought (Appendix C).

Although permission was received from all levels, there was a considerable amount of resentment voiced by the various administrators about the number of studies being conducted in the schools. Frequent

mention was made of the idea of setting up a committee to investigate studies carried out by university students and to permit only a certain number of studies in any one year to be conducted.

With approval obtained, the questionnaires were sent by mail to the schools which were a part of the study. Prior to leaving, a letter of announcement was sent to all the schools giving approximate dates the investigator planned to be at the schools (Apprndix F). Once at the school, a short interview was set up with the physical education teacher and at times an interview with the principal, when available, was conducted.

The material was later computed by an IBM 7040 computer.

Results of the Study

In all, sixty-six of the two hundred and eighty-four schools in the Province of Alberta were investigated. Table II indicates the total number of schools from each category that were chosen as the sample for the purposes of this study.

Because of the comparatively small numbers of schools in the total populations of Categories I(S), and II(JS), as compared with Category III(EJS), it was decided to take a larger number of schools from each of Categories I and II for the sample.

Originally, thirty-seven schools were chosen from Category III(EJS) for the puprose of the study; however, three schools failed to complete their questionnaires and, therefore, were excluded from the study. As a result, thirty-four schools made up the sample from Category III(EJS).

TABLE II

DISTRIBUTION OF SAMPLE SCHOOLS FROM THE CLASSIFICATION OF THE TOTAL NUMBER OF SCHOOLS IN THE PROVINCE OF ALBERTA

Category	Grades Taught in the School Building	Total Number of Schools in the Province	Total Number of Schools in Sample	Per Cent of Schools in Sample to Schools in Population Category
I(S)	Senior (10-12)	63	18	28.6%
II(JS)	Junior/Senior (7-12)	41	14	34.1
III(EJS)	Elementary/ Junior/Senior (1-12)	180	34	18.8
TOTAL		284	66	23.2%

Only one physical education teacher and one principal were asked to fill in the questionnaires from each of the sampled schools. Therefore, when personally gathered, only two questionnaires were collected from each school.

Table III indicates the numbers of physical education teachers and principals from each category who cooperated by completing the questionnaire.

The questionnaires were sent out and collected between the middle of April and the middle of May, 1966. At this time, a number of teachers mentioned that because of coming examinations and report card preparations, that particular time of year was not suitable for answering questionnaires. However, all answered the forms except the three schools from

TABLE III

NUMBER OF RESPONDING PHYSICAL EDUCATION TEACHERS AND PRINCIPALS FROM EACH CATEGORY

Category	Number of Sample Schools in Each Category	Responses from Category	
		Number of Phys. Ed. Teachers	Number of Principals
I(S)	18	18	18
II(JS)	14	14	14
III(EJS)	34	34	34
TOTAL	66	66	66

Category III(EJS).

Methods and Procedures: Conclusions

The questionnaire-interview technique was used for this study with questionnaires being devised for both the physical education teacher and the principal. The study was restricted to those schools teaching senior high school grades. After the total number of schools in Alberta were classified according to grades taught in the one school building, a sample was made up by drawing schools, randomly, from each category. In all, sixty-six schools were chosen from a population of two hundred eighty-four schools.

Permission was received from various administrators, the questionnaires sent and personally gathered, and the material computed by an IBM 7040 computer.

The problems arose mainly because the administrators thought that too many surveys were being conducted in the province and because the respondents felt that it was too late in the year to be answering questionnaires because of other school committments.

CHAPTER IV

TEACHER QUALIFICATIONS

Introduction

The authors of previous studies placed a great deal of emphasis on the notable lack of specially trained physical education teachers in the senior high schools. With this, a hypothesis was formulated that there exists a positive relationship between the level of qualifications and the extent of programs within the schools. Not only was there hypothesized a positive relationship between qualifications and programs, but between the qualifications and the responsibilities of the physical education teacher.

This chapter will investigate the qualifications of the sampled physical education teachers and subsequent chapters will deal with the other two areas.

A number of school principals complained that physical education teachers were difficult to attract because of the small communities in which the schools were located. Even if a qualified person was hired on staff, a small community did not offer sufficient interests and opportunities for the teacher and eventually he would seek employment in a larger town or city. This situation was not restricted to physical education teachers, but to the general school staff.

It was also surprising to learn that in some of the school divisions in this province, teachers with lower qualifications would be hired

before a qualified teacher because the salary committment for the person with fewer years of education and experience would be less. Upon checking with officials in Edmonton, this situation indeed was known to exist and was being remedied by the Provincial Government by providing grants to school divisions with inadequate funds.

Statistical tests were performed on the data, firstly to determine if the sample chosen was indicative of the total population of schools in the province, and, secondly to determine whether the average town size of the schools differed from category to category in both the sample and the population.

The finding showed that the sample did represent the total population of schools in the province and that the average town size per category did not differ between Category I(S)[1] and Category II(JS)[2] in the total population; and between Category I(S) and Category II(JS), and between Category II(JS) and Category III(EJS)[3] in the sample (see Appendix A). Therefore, the results, when related to population size, can be compared only between Category I(S) and Category III(EJS) in the sample.

Teacher Qualifications

As much information as possible was obtained from the respondents

---

[1]Refers to the first category and schools teaching only senior school grades (10-12 inclusive) in the one building.

[2]Refers to the second category and schools teaching both junior and senior grades (7-12 inclusive) in the one building.

[3]Refers to the third category and schools teaching all levels (1-12 inclusive) in the one building.

so that a clear and complete picture of the qualifications of the physical education teachers could be assembled.

Of the sixty-six teachers responding, fifty-eight were male and six female. The remaining two failed to indicate their sex.

It was unfortunate that there were only six female physical education teachers included in the sample because it would have been of value to compare physical education qualifications, responsibilities, and programs between sexes.

Table IV indicates the qualifications of the six female physical education teachers in Alberta.

In summary, Table IV reveals that the six female physical education teachers generally have not been teaching long, have averaged three years of education training, are adequately certificated, and received their most recent course work within the past few years. As well, half of the female teachers received their Bachelor of Education degrees and three have had no training in physical education. Not one had received a Bachelor of Physical Education degree or had taken any course work in the Physical Education degree pattern.

With respect to the teacher qualifications of the entire sample of sixty-six physical education teachers, the qualifications of the six female teachers will be combined with the information received from the other sixty responses.

It was observed from the data that Category I(S) led the other two categories in the average number of teacher training years taken by the physical education teacher(4.0 years) followed by Category II(JS)

TABLE IV

QUALIFICATIONS OF THE SIX FEMALE PHYSICAL EDUCATION TEACHERS

Category	Teacher According to Letter[1]	Year Teacher Training	Degree Held	Pattern Taken During Teacher Training	Certificate Held	Year of Most Recent Education Training	Years of Teaching Experience
I(S)	A	2	None	Major in Social Science, Faculty of Education	Standard S	1964-66	2
	B	2	None	Major in Physical Education, Faculty of Education	Standard S	1964-66	2
	C	4	B.A.	Social Studies & English, Faculty of Education	Professional	1956-60	11+
II(JS)	D	4	B.Ed.	Major in Physical Education, Faculty of Education	Professional	1964-66	1
III(EJS)	E	4	B.Ed.	Major in Physical Education, Faculty of Education	Professional	1961-63	3
	F	1	None	Some Field Other Than Physical Education	Junior E	1964-66	5

[1]Each of the six female physical education teachers has been assigned a letter. Teachers A, B, and C were from Category I, teacher D from Category II, and Teachers E, and F from Category III.

(3.7 years) and finally, Category III(EJS) (3.3 years). From this information it might be presumed that the teachers in Category I(S) would have more degrees than Category II(JS), which in turn would seem to have more degrees than Category III(EJS).

Table V does show this relationship. When comparing the percentages of each category not holding degrees, Category I(S) has the least percentage followed by Category II(JS) and Category III(EJS) has the largest percentage of teachers not holding degrees.

It is interesting to note that Category III(EJS) has a higher percentage of Bachelor of Education degrees than has Category II(JS). Also, Category II(JS) has a greater percentage of Bachelor of Physical Education degrees than do the remaining two categories.

Of the number of teachers who answered, the majority of the Physical Education teachers completed their degree work in the past four years.

Table VI represents the distribution of responses and the number of different types of certificates held in each category.

What is immediately apparent is that Category III(EJS) led the other two in the percentage of teachers holding the professional certificate. This situation is unusual in view of the fact that this particular category has the least percentage of teachers holding degrees and has the least number of years of teacher training per teacher of the three groups.

Referring to the provincial regulations concerning certification responsibilities of teachers (37:51), nine of the sixty-six teachers

TABLE V

ACCORDING TO CATEGORY, NUMBERS AND KINDS OF DEGREES HELD BY THE SAMPLE PHYSICAL EDUCATION TEACHERS

Type of Degree	Number of Responses Per Degree				Percentage Holding Each Type of Degree			
	Category I(S)[1]	Category II(JS)[2]	Category III(EJS)[3]	Total	Category I(S)	Category II(JS)	Category III(EJS)	Total
No degree	4	5	14	23	22.2%	35.7%	41.4%	34.8%
Bachelor of Ed.	9	2	10	21	50.0	14.3	29.4	31.8
Bachelor of Physical Ed. or Equivalent	2	5	2	9	11.1	35.8	5.8	13.6
Other Bachelor degree	1	2	2	5	5.6	14.2	5.8	7.6
Master's degree	2	-	1	3	11.1	-	2.9	4.6
Doctoral degree	-	-	-	-	-	-	-	-
No response	-	-	5	5	-	-	14.7	7.6
TOTAL	18	14	34	66	100.0	100.0	100.0	100.0

[1]The (S) refers to the senior grades (10-12) taught in one building, making up Category I(S).

[2]The (JS) refers to the junior and senior grades (7-12) taught in one building which make up Category II(JS).

[3]The (EJS) refers to the elementary, junior and senior grades (1-12) taught in one building which make up Category III(EJS).

TABLE VI

CERTIFICATE OF THE SAMPLE PHYSICAL EDUCATION TEACHERS

Type of Certificate	Number of Responses Per Certificate				Percentage Holding Each Certificate			
	Category I(S)	Category II(JS)	Category III(EJS)	Total	Category I(S)	Category II(JS)	Category III(EJS)	Total
Junior E	1	2	6	9	5.5%	14.3%	17.6%	13.6%
Standard E	1	1	-	2	5.5	7.2	-	3.3
Standard S	4	5	5	14	22.2	35.7	14.7	21.2
Professional	11	6	21	38	61.3	42.8	61.9	57.5
No response	1	-	2	3	5.5	-	5.8	4.4
TOTAL	18	14	34	66	100.0	100.0	100.0	100.0

admitted having a Junior E Certificate which by regulation allows instruction to be carried out from grades one to nine inclusive. However, these people were responsible for teaching in the senior high school grades. It would appear that some unqualified teachers are teaching the senior high school programs.

Of the total responses, the patterns taken in teacher training were: 43 per cent of the total sample had majored in physical education within the Bachelor of Education route; 13 per cent of the total sample had minored in physical education in the Bachelor of Education route; and the degree course in Physical Education was taken by 15 per cent of the total sample. Twenty-four per cent of the respondents had taken training in some other field and five per cent failed to respond. The most popular field of teacher training is definitely centered around the Bachelor of Education degree course with a person taking a major in Physical Education.

Category III(EJS) led in the percentage of teachers per category having had no training in physical education, with 35 per cent. Category I(S) was ranked second with 16 per cent, and Category II(JS) had the least number of untrained physical education teachers at seven per cent. When the principals were asked if their schools employed a specially-trained physical education teacher, 45 per cent of Category III(EJS) responded negatively, 19 per cent of Category I(S) reported having no trained physical education teachers, and all the principals of Category II(JS) reported that their physical education teachers had special training in this area. The discrepancy between the teachers'

and principals' answers in Categories I(S) and II(JS) was only one teacher and for Category III(EJS), the discrepancy was three teachers. Comparatively speaking this is a very small error.

Twenty-six per cent of the teachers in Grierson's study (15) had no training in physical education. This is compared to the 24 per cent of the total in this study.

The majority of physical education teachers had returned to continue their further training during the interval of years 1964-1966. A relatively high percentage from each category falls within this interval.

With reference to the type of courses of study taken in their teacher preparatory years, there was a wide variety of responses with only a few having taken Research in Physical Education to a large number of people having taken General Psychology (Appendix L).

As a means to validate some of the responses given by the physical education teachers on their qualifications, a spot check was made on eleven of their returns. Records were obtained from the Registrars at the Provincial Department of Education and at the University of Alberta (Edmonton). The responses were accurate in almost all respects. One deviation was found in the certification of one teacher. His records showed that he had a Standard S certificate and he responded as having a Professional certificate. In another area of discrepancy, the official records in five cases showed the number of years of teaching experience to be greater than the number responded to by the physical education teachers. The difference in four of the cases was only one year, while in another, the discrepancy was twenty-four years (the respondent marked

five years and the official records showed twenty-four years). In one other case the respondent marked seven years of teaching experience and official records showed two years.

In all other cases the information was identical between the official records and what was marked down by the physical education teachers in the questionnaire.

Teacher Qualifications: Conclusions

Because the majority of the respondents were male (fifty-eight out of sixty-six responses) the trend of their qualifications may be obtained by observing the total responses. However, because the female teachers were a small minority (six out of sixty-six respondents), their qualifications were presented separately.

Of the six female physical education teachers, they were divided equally in that three were qualified and the other three were not.

One purpose of the study was to determine in which category the highest qualifications were found and in which category the lowest qualifications were found. Because of this, it was necessary to rank the various criteria of qualifications from category to category. Following are the conclusions of teacher qualifications according to category.

Category I(S): This category led the other two in the average number of teacher training years, the percentage of total degrees held, and the percentage of Bachelor of Education degrees. It ranked second in the percentage of professional certificates held and was second highest in the proportion of teachers being specially trained in Physical Education.

Category II(JS): This category led in the percentage of teachers specially trained in physical education. It was behind Category I(S) in the average number of teacher training years and in the percentage of degree holders per category. Category II(JS) led in the percentage of teachers holding the Bachelor of Physical Education Degree.

Category III(EJS): In rank, Category III(EJS) was lowest in three of the five areas investigated. Only in the percentage of professional certificates per category did this category rank on top. Category III(EJS) was behind Category I(S) rank with regard to percentage of teachers holding the Bachelor of Education Degree.

In general, the largest number of physical education teachers took their teacher training in the Faculty of Education. All categories showed relatively good standards in qualifications except for Category III(EJS) which fell below the standards set by the other two. Also, nine teachers were instructing senior high school grades without proper certification.

CHAPTER V

PHYSICAL EDUCATION PROGRAMS

Introduction

Basically there are three types of programs provided in the schools for the students. The Required Program is compulsory for all students taking their first year of senior high school. The Intramural Program is set up to provide competitions among the students within the one school. The Interschool Program is organized to provide competitions between schools.

This chapter will investigate various aspects of the three programs in turn and an attempt will be made to determine which of the three categories provides the best all around program and which provides the weakest program of the three.

Required Programs

Procedure. All the schools investigated taught Physical Education 10 which is the compulsory first year high school physical education course. In addition, twenty-nine schools (43 per cent of the total sample) provided a second year optional course called Physical Education 20 for students. Of these twenty-nine schools, thirteen were from Category I(S) (72 per cent of the schools in that category); seven schools were from Category II(JS) (50 per cent of the schools in that category); and the remaining nine schools were from Category III(EJS)

(25 per cent of the schools in Category III(EJS). There is an obvious percentage decrease in the participating schools from Category I(S) through to Category III(EJS). The majority of schools indicated a drop in pupil enrollment from Physical Education 10 to Physical Education 20. This was explained by not having more time available for Physical Education 20 classes and in addition as Physical Education 20 was not compulsory, pupils did not necessarily select it. Two schools in the sample indicated that they offered a third year grade 12 physical education class called Physical Education 30.

Although the primary purpose of this survey was to investigate the senior high school physical education teacher, it was found that a number of teachers were responsible for the junior and sometimes the elementary grades as well.

The following table, Table VII, indicates for what grades the physical education teacher was responsible in teaching the physical education program.

An examination of Category I(S) for Table VII discloses that twelve teachers were responsible for only the senior high school grades (10-12). However, five schools center their programs on a combination of the junior and senior grades (7-12) where responsibilities are extended to cover two grade levels. From this table, there is a shift of emphasis from the senior only level (grades 10-12) in Category I(S) to a combination of the junior and senior (grades 7-12) level in the other two categories.

This appears quite logical. As the town size decreases, there are

TABLE VII

GRADE LEVEL AROUND WHICH THE SENIOR HIGH SCHOOL PHYSICAL EDUCATION TEACHER IS RESPONSIBLE FOR CONDUCTING HIS PROGRAM

	Distribution of Responses				Percentage Distribution of Responses			
Grade Level	Category I(S)	Category II(JS)	Category III(EJS)	Total Sample	Category I(S)	Category II(JS)	Category III(EJS)	Total Sample
S (10-12 only)	12	5	13	30	66.7%	35.7%	38.3%	45.4%
JS (7 -12)	5	3	12	20	27.8	21.4	35.3	30.3
J (7 - 9 only)	-	4	5	9	-	28.6	14.7	13.7
No response	1	2	4	7	5.5	14.3	11.7	10.6
TOTAL	18	14	34	66	100.0	100.0	100.0	100.0

fewer senior high school students enrolled in the one building and more sub-senior grades are included in the school. Eventually a point is reached where there is not a sufficient number of senior (10-12) grade students to warrant a separate program. As a result, they are incorporated as part of the junior (7-9) grade program. This then results in a combined senior-junior (7-12) grade program of activities.

If the size of the senior grades was to diminish drastically in number, then the program emphasis for physical education might be centered around only the junior grades (7-9) with the senior grades merely taking part.

The programs differ from school to school in the number of class periods per week physical education is taught. Some schools conduct daily physical education classes for their students, while others offer their students from two classes per week (the minimal requirement in Alberta) to four times per week.

Table VIII indicates the popular number of classes taught per week in physical education in Category I(S) which is either daily or four times per week. The other two categories concentrate their program between two and three times per week.

In comparing these results with those obtained by McLachlin and Grierson a sharp decline was noticed in the number of schools teaching physical education three times per week. It was found that 27 per cent of the present sample conducted physical education classes three times per week; whereas McLachlin found that 67 per cent of his sample, and Grierson 46 per cent of his sample, conducted physical education for a similar number of times per week. A trend through the years has

TABLE VIII

CATEGORIES REPRESENTING THE NUMBER OF CLASS PERIODS PER WEEK PHYSICAL EDUCATION IS TAUGHT

Number of Class Periods Per Week	Distribution of Schools				Percentage of School Distribution			
	Category I(S)	Category II(JS)	Category III(EJS)	Total Sample	Category I(S)	Category II(JS)	Category III(EJS)	Total Sample
Daily	8	2	6	16	44.4%	14.3%	17.6%	24.2%
Four times	3	-	3	6	16.7	-	8.8	9.1
Three times	4	4	10	18	22.2	28.6	29.4	27.3
Twice	1	6	14	21	5.5	42.8	41.3	31.8
Others	2	2	1	5	11.2	14.3	2.9	7.6
TOTAL	18	14	34	66	100.0	100.0	100.0	100.0

indicated a change from the three periods per week sessions in physical education to some other number of classes per week. A similar trend was noticed in the percentages of schools teaching physical education four times per week.

Twenty-four per cent of the schools in the present study as compared with nine per cent of McLachlin's and four per cent of Grierson's sample conducted their classes five times per week.

The number of schools taking physical education twice weekly has risen sharply over the findings of McLachlin and Grierson. Twenty-one per cent of the schools in the sample conducted physical education twice weekly compared to four per cent of Grierson's and nine per cent of McLachlin's sample.

From this information there seems to be a division of emphasis in class periods per week. There is a shift from three classes per week to either five or two classes per week. Whereas the shift to more physical education classes per week is encouraging, the shift downwards to two classes per week should be investigated with some concern.

The majority responded that the length of the class periods was similar to that of academic classes, that is, thirty-eight to forty-one minutes in length.

Class size for all categories was restricted to a range between twenty-one and twenty-nine students. Grierson found that 30 per cent of his sample had less than twenty pupils per class and only 12 per cent over thirty pupils per class. This compares in the present study with 21 per cent of the schools having less than twenty students per class and

23 per cent of the schools having thirty or more pupils in a class. There seems to be an increase in the number of students in an average physical education class.

The most prevalent method of determining classes in physical education was by using the same class structure as that used for academic subjects. Seventy-one per cent of the sample used this method. Nineteen per cent showed that no pre-planned classification was used. The remaining ten per cent failed to respond. McLachlin found that 54 per cent of his sample used academic classes as a basis for physical education classification. The remaining 29 per cent used medical results for class distinction. Eighty-one per cent of Grierson's sample used academic classes for physical education classes while 11 per cent used a weight-height classification.

When the physical education teacher was asked if students were required to wear gymnasium uniforms during physical education classes, 62 per cent of the total sample answered affirmatively. Broken down into categories, 77 per cent of Category I(S) had this requirement, 71 per cent of Category II(JS) complied, and only 50 per cent of Category III(EJS) made it compulsory. In Grierson's study only 46 per cent of his schools supported this requirement.

One may assume, for hygienic reasons, the wearing of physical education uniforms should be stressed in all schools as well as students taking showers following physical education classes. Where there are not showering facilities or where such facilities are inadequate, proper authorities should be notified and the situation rectified.

Only 54 per cent of the total sample of schools gave their students a choice of activities. This was not very popular in any of the three categories. Category I(S) gave a choice to 61 per cent of its schools, while Category III(EJS) gave a choice to 52 per cent of its schools and 50 per cent of Category II(JS) schools made a choice of activities available.

Co-educational activities were held in 68 per cent of the total number of schools in the sample. Seventy-seven per cent of Category I(S) provided activities for co-educational purposes. Sixty-four per cent of both Category II(JS) and Category III(EJS) provided similar activities. This total percentage of schools offering co-educational activities was a drop from the 81 per cent of McLachlin's sample of schools, which provided the same activity. However, compared with the 50 per cent of sample schools providing co-educational activities in Grierson's study, the present study shows a comparatively higher percentage.

Program of Activities

One part of the questionnaire for the physical education teacher was devoted to the program of activities carried out in the school. From a list of activities, the respondents were asked to check those activities which were carried out in their Required, Intramural, and Interschool Programs. In the Required Program the major emphasis in activities seemed to have been centered around both individual and team sports. In investigating Table IX of the activities conducted by the sampled schools, there appears to be those activities which are very

TABLE IX

PROGRAM OF ACTIVITIES--TOTAL RESPONSES

Activity	Required Program: Schools Conducting Each Activity Total	Required Program: Schools Conducting Each Activity Percent	Intramural Program: Schools Conducting Each Activity Total	Intramural Program: Schools Conducting Each Activity Percent	Interschool Program: Schools Conducting Each Activity Total	Interschool Program: Schools Conducting Each Activity Percent
Archery	2	3.3	1	1.5	0	0.0
Badminton	48	72.7	33	50.0	29	43.9
Baseball	12	18.2	6	9.9	6	9.9
Basketball	56	84.9	42	63.6	54	81.6
Bowling	2	3.0	4	6.1	3	4.1
Boxing	0	0.0	0	0.0	0	0.0
Curling	9	13.6	22	33.3	26	39.4
Calisthenics	35	53.1	5	7.9	7	10.6
Modern Dance	12	18.2	3	4.1	0	0.0
Square Dance	11	16.7	3	4.1	0	00.0
Fencing	0	0.0	1	1.5	0	0.0
Touch Football	42	63.6	22	33.3	8	12.7
Tackle Football	2	3.0	1	1.5	8	12.7
Games & Relays	22	33.3	1	1.5	2	3.3
Golf	3	4.1	3	4.1	3	4.1
Gymnastics	39	59.1	9	13.6	2	3.3
Handball	2	3.0	3	4.1	0	0.0
Ice Hockey	9	13.6	2	3.3	6	9.9
Field Hockey	2	3.0	3	4.1	0	0.0
Marching Tactics	1	1.5	1	1.5	0	0.0
Table Tennis	10	15.2	24	36.4	0	0.0
Self-Testing Act	7	10.6	1	1.5	0	0.0
Skiing	0	0.0	1	1.5	0	0.0
Soccer	31	46.9	7	10.6	4	6.1

TABLE IX (Continued)

Activity	Required Program: Schools Conducting Each Activity Total	Required Program: Schools Conducting Each Activity Percent	Intramural Program: Schools Conducting Each Activity Total	Intramural Program: Schools Conducting Each Activity Percent	Interschool Program: Schools Conducting Each Activity Total	Interschool Program: Schools Conducting Each Activity Percent
Softball	46	69.7	26	39.4	18	27.2
Speedball	7	10.6	2	3.3	0	0.0
Swimming	13	19.7	4	6.1	2	3.3
Tobogganing	0	0.0	1	1.5	0	0.0
Tennis	2	3.3	1	1.5	1	1.5
Track & Field	48	72.7	22	33.3	43	65.2
Trampoline	7	10.6	2	3.3	0	0.0
Tumbling	52	78.6	7	10.6	4	6.6
Volleyball	57	86.4	41	62.1	33	50.0
Weight Lifting	7	10.6	4	6.6	0	0.0
Wrestling	13	19.7	6	9.9	2	3.3

popular to a large number of schools and those which are not. The dividing mark between the two extremities appears to be at 50 per cent of the schools participating in any one activity.

The most popular sports which were conducted in 50 per cent or more of the schools in the sample were badminton (conducted in 72 per cent of the sample schools), basketball (in 84 per cent of the schools), touch football (63 per cent), gymnastics (59 per cent), softball (69 per cent), track and field (72 per cent), tumbling (78 per cent), and volleyball (86 per cent).

In Category I(S), swimming was conducted in 50 per cent or more of the schools as well.

Category II(JS) showed soccer was conducted in more than half of the sampled schools in addition to the activities mentioned preceding Category I(S) above.

Category III(EJS) showed an emphasis in the same activities that were popular to the sample. In addition, soccer was high in popularity.

It was evident from the results that the majority of schools conducted nine or more activities in their Required Program during the year. Investigating the percentages of schools in each category conducting nine or more activities, 72 per cent of the schools in Category I(S), 82 per cent of Category II(JS), and 53 per cent of Category III(EJS) schools conducted nine or more activities in their Required Programs during the school year.

Respondents were asked to trace on a yearly chart the number of weeks' duration of each activity within their Required Program throughout

the school year. The activity duration was calculated from the month in which the activity started whether the activity started during the first week of the month or the last. As a result, there will appear a certain amount of overlap at the end of one activity and at the beginning of the next activity.

The activity started in any particular month by the greatest percentage of schools was marked on a year's activity chart (Appendix K). Results were graphed for each of the three categories with one graph showing the results of the total sample (Appendix I). In the event that two activities were tied in popularity during any one month, the two activities were shown hyphenated on the timetable (refer to Appendix I).

The order of activities carried out in the Required Program throughout the year in Category I(S) were touch football, volleyball, basketball, gymnastics-tumbling, badminton, track and field, softball, and swimming.

Category II(JS) conducted their activities in the following order: touch football, volleyball, basketball, basketball-gymnastics, badminton-tumbling, badminton, track and field, and softball.

Finally, the order of activities for Category III(EJS) was touch football, volleyball, basketball, volleyball-badminton, tumbling, badminton, track and field, softball, and softball-baseball.

In comparing each of the schools' Required Program with the suggested regulations as set down by the Provincial Department of Education, some very interesting findings were found. There were only

three schools in the entire sample which completely followed the suggested program content of the Department of Education. One school was from Category II(JS), two from Category I(S) and none from Category III(EJS).

The most prevalent omissions in all categories were in dancing and swimming. The omission of swimming can be accounted for by the absence of swimming pools. However, the dancing omission cannot be accounted for as easily. Because of academic class predominance in class participation, it is surmised that there was not an opportunity for mixed classes to take part in dancing. As a result, dancing was not made part of the program.

In Category I(S) dancing was omitted from fifteen of the school programs, ten omitted swimming, two the individual sports, one the outdoor activities, and one that lacked indoor activities. From Category II(JS), eleven omitted dancing and ten did not include swimming. All the other requirements were met. Finally, in Category III(EJS) twenty-five schools failed to include dancing in their programs, thirty did not include swimming, three the individual sports, five the tumbling, one the indoor activities, and one failed to include outdoor activities in their programs. Category II(JS) and Category III(EJS) had the most deviation from the standards.

Intramural Programs

The Intramural Program is an activity provided for the students in the school to compete actively between teams within the schools. Participation in this program is completely voluntary.

Of the total responses, fifty-six of the schools (84 per cent)

indicated the presence of an Intramural Program in their schools. Ten schools admitted having no such program. Category I(S) led with the highest percentage of schools per category conducting this program (94 per cent). Ninety-two per cent of Category II(JS) sampled schools conducted an Intramural Program. Category III(EJS) had only 76 per cent of its schools carrying out this program. These results compare favorably with 68 per cent of McLachlin's study and 86 per cent of Grierson's study of the sample schools conducting an Intramural Program.

Because of pupils being bussed in from distant points, the Intramural Program was not available for all students, in some cases because the program was conducted after school. The students from Category III(EJS) were bussed into a greater extent than the other two categories, therefore, this group replied that the opportunity for all students to take part in this program was not equal.

Although the program was conducted after school, on weekends, and during evenings, the majority of schools responded that noon hours were the most suitable time to hold this activity.

Fifty per cent of Category III(EJS) had awards for intramural competitions. Seventy-two per cent of Category I(S) had similar awards, as did 78 per cent of Category II(JS). Awards for intramurals at any of the category levels does not appear to be popular.

Table X indicates the number of activities the schools in each of the three categories provide for their students. These activities are both individual and team in nature (refer to Appendix J).

A majority of schools in Category I(S) provided between four and seven activities in their Intramural Program for pupil participation.

TABLE X

NUMBER OF ACTIVITIES EACH CATEGORY PROVIDES FOR THE STUDENTS IN THE INTRAMURAL PROGRAM

Number of Activities Offered	Number of Sample Schools Taking Each Activity Level				
	Category I(S)	Category II(JS)	Category III(EJS)	Total	Percentage
1 - 3	3	4	17	24	36.4%
4 - 7	13	7	10	30	45.5
8 - 11	2	1	-	3	4.5
12 - 15	-	1	-	1	1.5
No Response	-	1	7	8	12.1
TOTAL	18	14	34	66	100.0%

This was identical to the range of activities offered in the majority of Category II(JS) schools. However, the majority of Category III(EJS) teachers offered between one and three activities in their school programs. This shows that the teacher in the first two categories conducts, on an average, more activities in their Intramural Programs than do the teachers from the third category.

As for the program of activities, the most popular sports were badminton (50 per cent of the total schools conducting this activity as part of the program), basketball (63 per cent of the sample conducting this activity), and volleyball (62 per cent). Volleyball was not popular in Category III(EJS).

By category, the average number of activities conducted were

5.3, 5.1, and 4.1 activities in Categories I(S), II(JS), and III(EJS) respectively.

Interschool Programs

This program is conducted to provide competition between schools.

To some teachers, the Interschool Program was more important than the Intramural Program. Ninety-six per cent of the total sample had teams or individuals taking part in interschool competitions. Because interschool athletics are usually restricted to the "gifted few," steps should be taken to make competitive athletics available to all students through an Intramural Program. Only one school from Category III(EJS) answered negatively to having interschool athletics and another school from the same category failed to respond to the question.

The most popular time for holding practices in interschool sports was after school and evenings. A relatively high proportion (37 per cent of all the sampled schools) indicated that practices were held at noon hour.

The noon hour must be very busy in some schools because 80 per cent of the schools in the sample conduct intramurals during this time and 37 per cent of the schools choose the noon recess as practice time for interschool athletics.

One and one-half hours was the average length of practice time reserved for interschool sports.

Forty-six per cent of total responses indicated that their players on interschool teams were insured against accidents.

All players taking part in interschool athletics should be insured

against accidents. Because the players represent the school, the school should, in turn, provide coverage for them.

Only 10.6 per cent of the entire sample required pupils to arrange their own transportation for interschool competitions. In all other cases transportation was provided by the school. School buses were the most common form of transporting players. For the sake of pupil supervision, it is not advisable for students to provide their own transportation to interschool games.

With regard to activities, basketball led in the percentage of schools participating in this sport with 81 per cent. In rank order and in percentages of sample schools participating, the most common sports were track and field (65 per cent), volleyball (50 per cent), badminton (43 per cent), and curling (39 per cent). Softball was next, with 27 per cent of all the schools taking part. The percentage of schools participating in the other activities was far below. It is difficult to understand how seven schools could take part in an activity such as interschool calisthenics, although the responses indicated that such was the case.

Category I(S) averaged 4.7 activities in the interschool program. Both Categories II(JS) and III(EJS) participated in an average of 3.9 activities.

Programs: Conclusions

Generally speaking the physical education programs in Category I(S) and II(JS) are quite good, offering a wide variety of activities and a variety of programs for students. It is extremely difficult to

determine which of these two categories is the best, however, from the data, Category I(S) would appear to have a slight edge when numbers of activities and percentages of schools in each category taking part in the intramural and interschool programs are considered. Category III(EJS) shows the lowest standard of the three.

Programs versus Qualifications

One of the hypotheses stated that there exists a positive relationship between qualifications and extent of program. In other words, the higher the personal qualifications of the physical education teacher, the more diverse the program.

Using a chi square test of independence (14:200) between qualifications and programs with category held constant, there was found to be no relationship between the two variables.

The analysis was performed using as variables the degree held, years of training, pattern of education, and certification of the physical education teacher compared to the number of activities conducted in the Required Program for each variable.

The only variable which came close to being significant was the direct relationship between the number of years of training and the number of activities in the program.

CHAPTER VI

TEACHER RESPONSIBILITIES

Introduction

The third and final area to be investigated in the survey is that of responsibilities for the physical education teacher.

Several different areas will be carefully studied. These areas will include teaching duties, hours spent coaching, testing, and other general responsibilities.

Other information was received from both the physical education teacher and the principal which have little direct bearing on the study, therefore, the results have been allocated to a different part of the study (see Appendix H).

Responsibilities

A pattern could be found, from Category II(JS) to Category III(EJS), with respect to the number of class periods per week the physical education teachers were responsible for teaching. Category I(S) had its teachers equally distributed from one to thirty-four periods per week. Category II(JS) had its sample teachers concentrated between ten and twenty-four classes of physical education per week. Category III(EJS) had a concentration of teachers teaching between one and fourteen periods per week in physical education.

Teachers in Category II(JS) were responsible for teaching more periods of physical education per week than those in Category III(EJS).

When investigating the number of class periods per week the physical education teacher was responsible for teaching in subjects other than physical education, there were an increasing number of periods required from Category I(S) to Category III(EJS) as shown in Table XI. In Category I(S) the majority of physical education

TABLE XI

NUMBER OF CLASS PERIODS PER WEEK PHYSICAL EDUCATION TEACHERS ARE RESPONSIBLE TO TEACH IN SUBJECTS OTHER THAN PHYSICAL EDUCATION

Number of Class Periods Per Week	Distribution of Teachers				
	Category I(S)	Category II(JS)	Category III(EJS)	Total	Percentage
None	7	2	2	11	16.6%
1 - 4	2	0	0	2	3.2
5 - 9	1	4	1	6	9.1
10 - 14	0	3	0	3	4.6
15 - 19	2	1	4	7	10.6
20 - 24	1	2	7	10	15.2
25 - 29	3	1	7	11	16.6
30 - 34	2	0	9	11	16.6
35 - 39	0	1	4	5	7.5

teachers taught less than four periods of other subjects per week. For Category II(JS) the concentration is between five and fourteen periods per week. Finally, Category III(EJS) has the majority of teachers concentrated between twenty and thirty-four periods per week.

One of the greatest weaknesses is portrayed in Table XI of the physical education program for Category III(EJS). When a physical education teacher is hired, he is generally expected to take a full academic course schedule as well. Because of the time spent on planning, marking, and preparing lessons for academic classes, the physical education teacher devotes more of his time on these subjects than on physical education. As a result the program of physical education suffers due to lack of adequate attention.

The comparatively heavy teaching duties that Category III(EJS) physical education teachers have is demonstrated in Table XII. In the number of class periods spent per week teaching both academic courses and physical education, the majority of the Category III(EJS) teachers' responses are between thirty-four and forty-one hours per week. The concentration of Category II(JS) teachers is between thirty and thirty-seven class periods per week. Finally, Category I(S), with twenty-six to thirty-three hours per week spent teaching classes, is the lowest of the three.

With regard to the number of hours spent in planning and marking, the majority of physical education teachers spent between four to eleven hours per week.

All categories had the majority of their physical education teachers spending between one and seven hours per week on intramural activities.

Investigating the number of hours spent on interschool athletics per week, the majority of Category I(S) teachers spent between eight and

TABLE XII

NUMBER OF CLASS PERIODS PER WEEK TEACHERS ARE REQUIRED TO TEACH BOTH ACADEMIC AND PHYSICAL EDUCATION CLASSES

Number of Class Periods Per Week	Distribution of Teachers				
	Category I(S)	Category II(JS)	Category III(EJS)	Total	Percentage
15 - 18	2	-	-	2	3.0%
19 - 21	-	-	1	1	1.5
22 - 25	1	-	1	2	3.0
26 - 29	7	3	1	11	16.7
30 - 33	4	4	4	12	18.2
34 - 37	4	6	15	25	37.9
38 - 41	-	-	12	12	18.2
42 - 45	-	1	-	1	1.5

nineteen hours. Category II(JS) teachers spent between four and fifteen hours per week. And, finally, Category III(EJS) teachers spent between four and eleven hours per week on interschool activities. Irwin (18:122) found that eight hours was the medium of time, for her sample, spent on extracurricular activities.

From the information received thus far, Category I(S) teachers are required to teach fewer class periods per week than the other two categories, but spend more time on interschool athletics than the other two. The answer to the success of physical education in the smaller communities is to reduce teacher load, thus providing more time to conduct the Required, Intramural, and Interschool Programs properly.

Whereas the first two categories of teachers get reduced teaching responsibilities in return for conducting the Intramural and Inter-school Programs, the third category receives no consideration.

Although a large number of Category I(S) teachers had no academic teaching responsibilities, the most popular subjects taught among those that did have this responsibility were Science, Mathematics, Psychology, and Biology. The popular courses taught in Category II(JS) were Health, Science and Mathematics. Six subjects were popular in Category III(EJS). They were: Mathematics, Science, Literature, French, English, and Health.

Marking

With reference to marking, only 38 per cent of the teachers from Category III(EJS) had an organized plan of measuring pupil progress in physical education. Both Categories I(S) and II(JS) registered a large percentage of teachers having such a plan.

Two-thirds of the physical education teachers in the total sample indicated the use of skill tests for grading purposes. Written tests were also used by two-thirds of the total number of teachers.

Categories I(S) and II(JS) showed that 72 and 85 per cent of their respective teachers used skill tests, whereas only 58 per cent of the third category used this type of test.

Written tests were not as popular as skill tests with 61, 71, and 64 per cent of Categories I(S), II(JS), and III(EJS) respectively, making use of them.

In assigning a mark in physical education, nine schools (13 per

cent of the total sample) admitted marking subjectively, but fifteen others could be classified as using subjective means to obtain a mark. This latter group used "attitude," "sportsmanship," "attendance," and many other abstract criteria to arrive at a mark. Therefore, 36 per cent of the total responses could be considered as having used a subjective basis for arriving at a mark. Category III(EJS) had the highest percentage of teachers per category using subjective grading to evaluate student marks. Forty-four per cent of the teachers in this category used subjective marking.

Financial Support

Only 33 per cent of the teachers in the total sample were responsible for submitting a yearly budget in physical education. Generally the school board sets the amount of money that is available. Thirty-three per cent of Category I(S) answered affirmatively to dependable and adequate financial support, while 50 per cent of both Categories II(JS) and III(EJS) answered similarly.

Responsibilities: Conclusions

From the discussions held with the physical education teachers, many were of the opinion that teachers of physical education are overworked. Irwin (18:125), in a study of teacher work load, found that physical education teachers spend more time with their work than teachers of other disciplines.

Category I(S) seems to be close to the ideal situation where classroom responsibilities are reduced to compensate for the time spent in extra-curricular activities. Category II(JS) is between both extremes, not as well off as the teachers in Category I(S), but in a better position than the physical education teachers in Category III(EJS).

Responsibilities versus Qualifications

In the hypothesis stated previously, there was presumed to be a positive relationship between qualifications and the extent of responsibilities. Responsibilities were referred to in terms of the responsibilities in setting up an intramural and/or interschool activities program. The assumption was that the higher the qualifications, the greater the probability that the school, under the direction of a qualified teacher, would contain both intramural and interschool activities.

Using a chi square test for independence (14:200) between the teacher's qualifications (held independent of category) and the extent of responsibilities, no relationship was found and the hypothesis was rejected. Rejection of the hypothesis was due in part to the random distribution of programs among variously qualified teachers. If Category III(EJS) were given reduced working loads to compensate for setting up extracurricular activities in physical education, perhaps the standard of the program would rise.

Qualifications, Responsibilities, and Programs as Compared Between Categories

There is a difference between the qualifications, responsibilities and programs of physical education teachers from one category to the others.

The strength of the physical education program in the senior high schools of Alberta is in Category I(S). In this classification the teachers generally have the highest qualifications, conduct a wide

variety of activities, and make a variety of programs (Intramural and Interschool) available for student participation. Category II(JS) was very close to the standard of the first category, but in a number of instances, slight differences could be observed.

Finally, Category III(EJS) had the lowest standard when compared to the other two. In nearly all instances the levels of qualifications, responsibilities and program in Category III(EJS) were below the examples set by Categories I(S) and II(JS).

Therefore, the hypothesis that the programs, qualifications, and responsibilities of teachers vary according to the classification of school investigated was proven.

CHAPTER VII

SUMMARY AND CONCLUSIONS

Summary

The problem developed in this paper has been to investigate the qualifications, responsibilities, and programs of physical education teachers in the senior high schools within the Province of Alberta, Canada.

A sample was selected by first categorizing all the senior high schools in the Province of Alberta into one of three distinct categories:

Category I(S): Consisted of all senior high schools teaching only grades 10-12 in the one building.

Category II(JS): Consisted of all senior high schools that taught both junior and senior high school grades (7-12) in the one school building.

Category III(EJS): Consisted of all senior high schools that taught all levels of education (grades 1-12) in the one school building.

A random selection of 20 per cent of the schools from each category was made. In all, sixty-six schools were selected for the purposes of this study. Eighteen schools were chosen from Category I(S), fourteen schools from Category II(JS), and thirty-seven schools from Category III(EJS). Three of the sampled schools from Category III(EJS) did not respond, leaving thirty-four schools in that category.

Once permission was received from the Department of Education, School Superintendents, and Principals, questionnaires were sent to the physical education teacher and principal of each sample school.

The general purpose of the study was to determine the present conditions of physical education in the province. It was also hoped that through this study, strengths and weaknesses could be isolated in the programs of physical education in the Province of Alberta.

Since the size of the community was deemed important to attract trained physical education teachers, statistical treatment was applied to determine if there was significance in the differences of average of sizes of towns among the three categories. The schools from Category I(S) were assumed to be located in larger towns or cities within the province as were the schools from Category III(EJS) assumed to be located in smaller towns, villages or hamlets. And Category II(JS) was assumed to have contained schools from town sizes falling between the other two categories. There were differences between the average size of town population of the three categories, however, statistical significance was obtained only between Category I(S) and Category III(EJS).

From this, three hypotheses were formulated. Firstly, that programs, qualifications, and responsibilities, would vary as to the classification of school investigated. Category I(S) was assumed to have the highest standards, followed by Category II(JS), and that Category III(EJS) would have the lowest standard of the three categories.

Secondly, there was hypothesized a relationship between qualifications and programs to show that the higher the qualifications the

more diverse the program.

Finally, there was assumed to be a positive relationship between teacher qualifications and responsibilities. This implied that physical education teachers with greater qualifications would instigate one or both intramural and interschool activities.

Once the results were tabulated a summary of the findings was sent to all the schools in the sample.

Conclusions

A relationship was found between the qualifications, responsibilities, and programs of physical education teachers according to category. Generally, the standards, determined by the three criteria mentioned, were highest in Category I(S) and lowest in Category III(EJS). No relationship was found between qualifications and programs (categories being held constant), and between qualifications and responsibilities (with categories held constant). These latter two conclusions are in direct contrast to the findings of Irwin (18).

It is then concluded that the physical education standards of a school vary according to category, irrespective of teacher qualifications.

A possible explanation may be that the school administrators from Category I(S) demand a higher standard in physical education because of the level of competition between schools. In Category III(EJS) there may be no expectations on the physical education teacher to expand and improve his program because of the little attention focused on competition. This, however, is an assumption and is not based on the results

presented.

In conclusion, physical education in Categories I(S) and II(JS) is well organized and has reached a relatively high level of achievement. The real concern of physical education administrators should be focused on Category III(EJS). It is in this classification that the majority of problems occur.

One major problem in Category III(EJS) is the work load each teacher must carry. Usually the physical education teachers, as well as being responsible for physical education classes, are required to teach a full academic schedule. It may be that the responsibilities for preparation of academic subjects distracts the teachers' attention from the physical education program. As a result, the Required Program may suffer due to a lack of a variety of activities and the teacher may not bother with the Intramural program because of it being too time consuming.

In Categories I(S) and II(JS) this situation does not exist because the academic work load is reduced.

Another problem in Category III(EJS) is the apathy shown by other staff members towards assisting the physical education teacher in part of his duties. In a smaller school the availability of assistance is not too great because of the limited number of teachers. In a larger school with more teachers, the possibility of finding some other staff member who is interested and willing to assist in teaching and coaching duties is much greater than the possibility of finding such a person in a small school.

However, the greatest complaint, from all respondents, was against school boards for not allocating more money to physical education for the purchase of equipment and construction of facilities. In the opinion of many respondents, the prevailing attitudes of the school board members was that physical education is an unnecessary frill of the school curriculum and could easily be done away with. The only barrier, however, to such an action is the provincial regulation making physical education a compulsory part of the school program. Because of such an attitude, it seems that many school boards allocate sufficient money to cover only the bare necessities of physical education.

Recommendations

Following are a number of recommendations that are based on the results of this study.

To assist schools with limited programs in physical education, seminars in this school subject should be held throughout the province to educate or re-educate teachers in methods of establishing, financing, and administering a physical education program in the schools.

Another method to assist people in the high schools would be to make a précis of current research in physical education available to all interested schools in Alberta. A common complaint among school educators was the lack of follow-through on research studies. A great amount of time and effort is taken in answering questionnaires and holding interviews. However, time spent by the teacher is unrewarded. A précis of the present study will be sent to the sample schools to

fulfill in part the needs of this paper (refer to Chapter I, page 5).

In order to attract physical education teachers to the smaller community schools in the province, one solution suggested would be to incorporate a compulsory teaching system at the university. A student finishing his education in physical education should be held responsible for teaching in one of the schools assigned to him by a faculty committee. This compulsory period of training should be for one or two years. Such a situation would be beneficial to the teacher in providing him with the experience, and to the schools by having a good physical education program for its students.

Finally, a standard questionnaire should be formulated to assist in evaluation of the physical education programs in Alberta and in Canada so that a country-wide comparison could be drawn.

Further research could be carried out in a number of fields.

1. Separate studies should be made for all the schools in the province specifying particular schools which require assistance.

2. It would be interesting to determine the attitude of physical education teachers who are instructing and to determine the relationship, if any, of their attitude with their types of programs.

3. Attitude studies carried out on principals and school board members to isolate their likes and dislikes for physical education would serve as an indicator of the relationship of their attitudes to the programs of physical education in the schools.

4. A study should be conducted to compare socio-economic classes within the provinces and thus isolate those school districts which are not financially sound to spend money on adequately qualified

teachers, better facilities and equipment and thus improve conditions in the schools.

5. A study should be carried out on elementary and junior grade physical education as well as the senior high school grades.

BIBLIOGRAPHY

BIBLIOGRAPHY

1. A.S.C.D. Using Current Curriculum Development. Washington: Association for Supervision and Curriculum Development, 1963.

2. Borcher, W. J. "An Analysis of Public Opinion in Regard to Physical Education in Public Schools." Unpublished Doctoral thesis, University of Oregon, Eugene, 1964.

3. Boyko, S. "Current Practices in Extracurricular Activities in Alberta Centralized Schools." Unpublished Master's thesis, University of Alberta, Edmonton, 1959.

4. Clarke, L. H. "Teaching an Overworked Profession?" Clearing House (January, 1955), p. 35.

5. Coombe, E. M "Functions and Competencies of Physical Education Teachers." Unpublished Education Doctoral thesis, Stanford University, Stanford, Califoenia, 1952.

6. Curtis, J. "The Training of Physical Education Teachers." Unpublished Doctor of Education dissertation, Elbridge, California, 1948.

7. Dexter, G. "Physical Education Progress in California Public, Junior, Senior, Junior-Senior and Four Year High Schools in 1956-57." Unpublished Doctoral thesis, University of California, 1959.

8. Dutton, S. A. "Guidance Problems Encountered by Women Physical Education Teachers in Iowa Secondary Schools." Unpublished Master of Arts thesis, Des Moines, Iowa, 1963.

9. Eckert, H. M. "The Development of Organized Recreation and Physical Education in Alberta." Unpublished Master of Education thesis, University of Alberta, Edmonton, 1953.

10. Edwards. A. L. Experimental Design in Psychological Research. New York: Holt, Rinehart, and Winston, 1963.

11. Eriksson, A. W. "A Survey of Physical Education and Health in Representative One-Room Schools of Alberta." Unpublished Master's thesis, Department of Physical Education, University of Washington, 1943.

12. Errington, J. "An Evaluation of Undergraduate Professional Preparation in Physical Education for Men in Canada." Unpublished Doctoral thesis, Bloomington, Indiana, 1957.

13. Fenske, M. K. "An Analysis of the Work Week of a Sample of Central Alberta High School Teachers." Unpublished Master of Education thesis, University of Alberta, Edmonton.

14. Ferguson, G. A. Statistical Analysis in Psychology and Education. New York: McGraw-Hill Book Company, Inc., 1962.

15. Grierson, M. K. "An Evaluation of the Physical Education Facilities and Programs in Secondary Schools of Alberta." Unpublished Master's thesis, University of Alberta, 1955.

16. Guerrara, J. A. "A Survey of Physical Education Facilities," Scholastic Coach (January, 1953).

17. Hall, S. H. "A Critical Analysis of the Status of the Health and Physical Education Program for Boys in Selected California High Schools." Unpublished Master's thesis, Bloomington, Indiana.

18. Irwin, M. E. "An Analysis of the Work Load of High School Physical Education Teaching." Unpublished Master of Education thesis, University of Alberta, Edmonton, 1965.

19. Johnson, R. H. "A Study of the Present Status of Selection of Men Students for Progressional Learning in Physical Education." Unpublished Doctoral thesis, Syracuse, New York, 1948.

20. Kerker, L. W. "An Evaluation of the Effectiveness of the Preparation of Beginning Secondary Teachers in Physical Education Graduating from Five Selected Illinois Teacher Education Schools." Unpublished Doctoral thesis, Bloomington, Indiana, 1954.

21. Kimball, W. Supervision for Better Schools. New York: Prentice Hall, Inc., 1950.

22. LaPorte, W. R. The Physical Education Curriculum. Los Angeles: University of Los Angeles Press, 1955.

23. McKeel, E. "The Present Status of Required Physical Education in High Schools of Northeast Arkansas." Unpublished Master's thesis, 1961.

24. McKown, H. C. Extracurricular Activities. New York: The Macmillan Company, 1955.

25. McLachlin, H. J. "A Survey of the Physical Education Curriculum Facilities and Administrative Organizations in the Senior High Schools in the Cities of the Province of Alberta, Canada." Unpublished Master of Science thesis, University of Washington, 1952.

26. Madge, J. The Tools of Social Science. London: Longmans, Green and Company, 1953.

27. Mayo, W. "Physical Education Needs and Interests of High School Boys." Unpublished Master of Science thesis, University of Arkansas, 1962.

28. Moser, Charles. "A Survey and Evaluation of the Physical Education Equipment and Facilities in the Senior High Schools of Alberta, Canada." Unpublished Master's thesis, University of Alberta, Edmonton (in preparation).

29. Miller, F. A., H. J. Moyer, and R. B. Patrich. Planning Student Activities. Englewood Cliffs, N.J.: Prentice-Hall, 1956, p. 594.

30. Mueller, P. and E. D. Mitchell. Intramural Sports. New York: The Ronald Press Company, 1960.

31. Murray, T. H. "An Investigation of the Reasons Why Teachers Leave Teaching." Unpublished Master's thesis, University of Alberta, Edmonton, 1955.

32. Nesom, G. W. "An Evaluation of Physical Education in Public High Schools of Louisiana." Unpublished Doctor of Education thesis, Nashville, Tennessee, 1960.

33. Nixon, E. W. and E. W. Cozens. An Introduction to Physical Education. Philadelphia: W. B. Saunders Company, 1947.

34. Panton, J. H. "A Survey of Men's Intramural Programs in Universities and Secondary Schools in Manitoba, Saskatchewan, Alberta and British Columbia and a Suggested Plan for Organization in Secondary Schools." Unpublished Master's thesis, Department of Physical Education, University of Washington, 1948.

35. Parkam, D. A. "A Study of Physical Education Programs in White Public Secondary Schools of Arkansas." Unpublished Doctor of Education thesis, Nashville, 1959.

36. Percevault, J. B. "Rural School Administration Costs." Unpublished Master of Education thesis, University of Alberta, Edmonton, 1964.

37. Province of Alberta. Handbook. Edmonton: Department of Education, 1965-66.

38. _____ "Program of Studies for Senior High Schools." Edmonton: Department of Education, 1965-66.

39. Robinson, N. I. "Lift the Teacher Load," National Education Association Journal, XXXLIII (November, 1964).

40. Rogers, J. E. "Physical Education in Education," The Journal of Health and Physical Education, XIX:10 (December, 1948), p. 650.

41. Scott, M. G. Research Methods in Health, Physical Education and Recreation. Second Edition. Washington, D.C.: American Association for Health, Physical Education and Recreation, 1959. 87-92.

42. Sherritt, N. A. "Evaluation of Extra-curricular Activities." Master of Education thesis, University of Alberta, Edmonton, 1964.

43. Spiegel, M. R. Theory and Problems of Statistics. New York: Schaum Publishing Company, 1961.

44. Williams, J. F. and C. L. Brownell. The Administrator of Health Education and Physical Education. Philadelphia: W. B. Saunders Company, 1951. 386.

45. Winer, B. J. Statistical Principles in Experimental Design. New York: McGraw-Hill Book Company, 1962.

APPENDIX A

STATISTICAL TREATMENT

APPENDIX A

STATISTICAL TREATMENT

A. Chi square analysis

1. Hypotheses

H_0: there exists no significant difference between the sample drawn from the population and the theoretical frequencies.

H_1: there exists a significant difference between the sample drawn from the population and the theoretical frequencies.

2. Test

Chi square test

3. Level of significance = .05

4. Degrees of Freedom: (c-1) (R-1) = (3-1) (2-1) = 2

5. Decision rule: Reject H_0 if $X^2 > 5.99$

6. Calculations

TABLE I

CHI SQUARE TABLE

Category	Population	Sample Frequency	Expected Frequency	$(O-E)^2$	$\frac{(O-E)^2}{E}$
Senior	63	18	15	9	0.60
Junior	41	14	9	25	2.78
Elementary	180	34	42	64	1.52
					$X^2 = 4.90$

Decision: With a X^2 of 4.90, according to our decision rule we accept the H_0 and reject H_1. In fact, $.05 < p < .1$.

B. Hartley Test for Homogeneity of Population Variances.

(a) Senior versus Junior categories

1. Hypothesis

H_0: The variances are not significantly different.

H_1: The variances are significantly different.

2. Test

$$\text{Hartley Test} \quad \frac{S_1^2 \text{ (largest variance)}}{S_2^2 \text{ (smallest variance)}}$$

3. Degree of Freedom

$$\frac{df S_1^2}{df S_2^2} = \frac{(n-1)_2}{(n-1)_1} = \frac{62}{40}$$

4. Level of Significance

$\alpha = .02$

5. Decision Rule: Reject H_0 if F 2.81

6. Calculations: (Senior) $S_1^2 = 68,800,000$

(Junior) $S_1^2 = 49,500,000$

$$F = \frac{68,800,000}{49,500,000} = 1.39$$

Decision: Since 1.39 is not greater than 2.81 we accept the H_0. There is no significant difference between the two variances. In fact $p < .10$.

(b) Junior versus Elementary category

1. Hypothesis

H_0: The variances are not significantly different

H_1: The variances are significantly different

2. Test: Hartley Test

3. Degrees of Freedom

$$\frac{df\,S_1^2}{df\,S_2^2} = \frac{40}{179}$$

4. Level of Significance

$\alpha = .02$

5. Decision Rule: Reject H_0 if $F > 2.72$

6. Calculations:

(Junior)	S_1^2	= 49,500,000
(Elementary)	S_2^2	= 930,000
	F	= 54

Decision: Since $54 > 2.72$ reject H_0 and accept H_1. There is a significant difference of the variances between the Junior and Elementary categories.

(c) Senior versus Elementary Category

1. Hypotheses

H_0: The variances are not significantly different

H_1: The variances are significantly different

2. Test: Hartley Test

3. Degree of Freedom

$$\frac{df\,S_1^2}{df\,S_2^2} = \frac{62}{179}$$

4. Level of Significance: $\alpha = .02$

5. Decision Rule: Reject H_0 if $F > 1.59$

6. Calculations

(Senior) $S_1^2 = 68,800,000$

(Elementary) $S_2^2 = 930,000$

$F = 74$

Decision: Since 74 > 1.59 we reject H_0 and accept H_1. There is a significant difference in the two variances.

TABLE II

SUMMARY OF HARTLEY TEST FOR POPULATION VARIANCES

	Senior	Junior	Elementary
Senior	-	1.39	74[a]
Junior		-	54[a]
Elementary			-

[a] Significant at the .02 level.

C. Hartley Test for Homogeneity of Sample Variance

(a) Senior versus Junior category

1. Hypotheses

H_0: The variances are not significantly different

H_1: The variances are significantly different.

2. Test: Hartley Test

3. Degree of Freedom

$$\frac{df S_1^2}{df S_2^2} = \frac{17}{13}$$

4. Level of Significance: $\alpha = .02$

5. Decision Rule: Reject H_0 if $F > 2.81$

6. Calculations:

(Senior)	S_1^2	=	99,000,000
(Junior)	S_2^2	=	88,000,000
	F	=	1.145

Decision: Since 1.145 is not greater than 2.81, we accept the H_0 and reject H_1. There is no significant difference between variances. In fact, $p < .10$.

(b) Junior versus Elementary category

1. Hypotheses

H_0: The variances are not significantly different

H_1: The variances are significantly different

2. Test: Hartley Test

3. Degree of Freedom

$$\frac{df S_1^2}{df S_2^2} = \frac{13}{33}$$

4. Level of Significance: $\alpha = .02$

5. Decision Rule: Reject H_0 if $F > 2.72$

6. Calculations

(Junior)	S_1^2	=	88,000,000
(Elementary)	S_2^2	=	132,000
	F	=	665

Decision: It is evident that H_0 is rejected and H_1 is accepted since $665 > 2.72$. There is a significant difference between the two variances.

(c) Senior versus Elementary category

1. Hypotheses

H_0: There is no significant difference between variances

H_1: There is a significant difference between variances

2. Test: Hartley Test

3. Degree of Freedom:

$$\frac{df\,S_1^2}{df\,S_2^2} = \frac{17}{33}$$

4. Level of Significance: $\alpha = .02$

5. Decision Rule: Reject H_0 if $F > 2.57$.

6. Calculations

(Senior) $S_1^2 = 99{,}000{,}000$

(Elementary) $S_2^2 = 132{,}000$

$F = 756$

Decision: Since $756 > 2.57$ reject H_0 and accept H_1. There is a significant difference between the variances.

TABLE III

SUMMARY OF HARTLEY TEST FOR SAMPLE VARIANCES

Category	Senior	Junior	Elementary
Senior	-	1.125	714[a]
Junior		-	665[a]
Elementary			-

[a]Significant at the .02 level.

D. Test of Significance Between Means of Population

TABLE IV

POPULATION FORMATION

	Category		
	Senior	Junior	Elementary
N	32	36	155
ΣX	178,713	126,942	117,062
ΣX^2	3,131,833,325	2,182,302,220	231,588,384
$\Sigma \bar{X}$	5,585	3,832	755
$SS(\Sigma X^2 - \frac{(\Sigma X)^2}{N})$	2,133,760,314	1,734,683,572	143,178,636
S^2	68,800,000	49,500,000	930,000

(a) Senior versus Junior category

Since the N's were reasonably close and the variances did not differ significantly, a simple test of significance between the difference of means will be carried out.

1. Hypotheses

   H_0: The means do not significantly differ

   H_1: The means are significantly different

2. Test: "t" test of significance

3. Degree of Freedom: $N_1 + N_2 - 2 = 6$

4. Level of Significance: $\alpha = .05$

5. Decision Rule: Reject H_0 if "t" $>$ 1.978

Calculations:

6. $$S^2 \text{ pooled} = \frac{\Sigma X_1^2 - \frac{(\Sigma X)^2}{N_1} + X_2^2 - \frac{(\Sigma X_2)^2}{N_2}}{N_1 + N_2 - 2}$$

$$= 58,100,000$$

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{S^2 \text{ pooled}}{N_1} + \frac{S^2 \text{ pooled}}{N_2}}}$$

$$= 0.936$$

Decision: Since .936 < 1.978 accept the null hypothesis and reject H_1. In fact $p < .20$.

(b) Junior versus Elementary caregory

If S_1^2 and S_2^2 differ significantly and if n_1 is not equal to n_2, then the standard error of the difference can be designated by

$$S_{\bar{X}_1 - \bar{X}_2} = \frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}$$

Sums of squares are not pooled because the F test has already proven that the hypothesis of a common population variance is not tenable.

Therefore, the "t" will be calculated as Edwards (1:273)

$$\text{"t"} = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}}$$

To test if the "t" is significant the method of Cochrane and Cox follows that:

$$t_{.05} \quad \frac{(S^2_{\bar{X}_1})(t_1) + S^2_{\bar{X}_2}(t_2)}{S^2_{\bar{X}_1} + S^2_{\bar{X}_2}}$$

Where: $S_{\bar{X}_1}^2$ = variance of group one divided by n

$S_{\bar{X}_2}^2$ = variance of group two divided by n

t_1 = t value for df of group one

t_2 = t value for df of group two

1. Hypotheses

   H_0: the means do not differ significantly

   H_1: the means do differ significantly

2. Test: "t" test of significance with Cochrane and Cox adjustment

3. Degrees of freedom: df t_1 = 35

   df t_2 = 154

4. Level of significance: α = .05

5. Decision Rule: Reject H_0 if $t_{.05} < t$

6. Calculations

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}}$$

$$= 2.605$$

$$t_{05} = \frac{S_{\bar{X}_1}^2 (t_1) + S_{\bar{X}_2}^2 (t_2)}{S_{\bar{X}_1}^2 + S_{\bar{X}_2}^2}$$

$$= 2.30$$

Since the value of t_{05} < the value of t, reject H_0 and accept H_1. There is a significant difference of means at the .05 level.

(c) Senior versus Elementary category

1. Hypotheses

H_0: the means are not significantly different

H_1: the means are significantly different

2. Test: "t" test of significance with Cochrane and Cox adjustment

3. Degrees of freedom: $dft_1 = 31$

$dft_2 = 154$

4. Level of Significance: $\alpha = .05$

5. Decision Rule: Reject H_0 if $t_{05} < t$

6. Calculations:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}}$$

$$= 3.281$$

$$t_{05} = \frac{S^2_{\bar{X}_1}(t_1) + S^2_{\bar{X}_2}(t_2)}{S^2_{\bar{X}_1} + S^2_{\bar{X}_2}}$$

$$= 2.041$$

Decision: Since the value of $t_{05} < t$, reject H_0 and accept H_1. The means are significantly different.

TABLE V

SUMMARY OF SIGNIFICANCE OF POPULATION MEANS

	Senior	Junior	Elementary
Senior	-	0.936	2.605[a]
Junior		-	3.281[a]
Elementary			-

[a]Significant at the .05 level.

E. Test of Significance Between Means of the Sample

TABLE VI

SAMPLE INFORMATION

	Category		
	Senior	Junior	Elementary
n	16	14	32
ΣX	122,054	61,734	24,385
$\bar{X}$	7,630	4,410	762
$SS\left(\Sigma X^2 - \frac{(\Sigma X)^2}{n}\right)$	1,487,815,754	1,145,558,380	41,124,205
S^2	99,100,000	88,100,000	132,000

(a) Senior versus Junior Category

1. Hypotheses

H_0: the means are not significantly different

H_1: the means are significantly different

2. Test: "t" test of significance

3. Degrees of Freedom: $n_1 + n_2 - 2 = 28$

4. Level of significance: $\alpha = .05$

5. Decision Rule: Reject H_0 if $t > 2.069$

6. Calculations:

$$S^2 \text{ pooled} = \frac{\left[\Sigma X_1^2 - \frac{(X_1)^2}{n_1}\right] + \left[\Sigma X_2^2 - \frac{(\Sigma X_2)^2}{n_2}\right]}{n_1 + n_2 - 2}$$

$$= 94,000,000$$

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{S^2 \text{ pooled}}{n_1} + \frac{S^2 \text{ pooled}}{n_2}}}$$

$$= 0.908$$

Decision: Since $0.908 < 2.069$, accept H_0 and reject H_1. There is no significant difference in means. In fact $p < .20$

(b) Junior versus Elementary

Since the variances and n's are unequal, the Cochrane-Cox adjustment will be made.

1. Hypotheses:

   H_0: the means do not differ significantly

   H_1: the means are significantly different

2. Test: "t" test of significance with Cochrane and Cox adjustment.

3. Degrees of Freedom: $dft_1 = 13$

   $dft_2 = 31$

4. Level of Significance: $\alpha = .05$

5. Decision Rule: Reject H_0 if $t_{05} < t$

6. Calculations:

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}}$$

$$= 1.405$$

$$t_{05} = \frac{S^2_{\bar{X}_1}(t_1) + S^2_{\bar{X}_2}(t_2)}{S^2_{\bar{X}_1} + S^2_{\bar{X}_2}}$$

$$= 2.161$$

Decision: Since $t_{05} > t$, accept H_0 and reject H_1. There is no significant difference of means.

(c) Senior versus Elementary Category

1. Hypotheses

H_0: the means are not significantly different

H_1: the means are significantly different

2. Test: "t" test of significance with Cochrane and Cox adjustment

3. Degrees of Freedom: $dft_1 = 15$

$dft_2 = 31$

4. Level of significance: $\alpha = .05$

5. Reject H_0 if $t_{05} < t$

c. Calculations

$$t = \frac{\bar{X}_1 - \bar{X}_2}{\sqrt{\frac{S_1^2}{n_1} + \frac{S_2^2}{n_2}}}$$

$$= 2.761$$

$$t_{05} = \frac{S^2_{\bar{X}_1}(t_1) + S^2_{\bar{X}_2}(t_2)}{S^2_{\bar{X}_1} + S^2_{\bar{X}_2}}$$

$$= 2.130$$

Decision: Since $2.130 < 2.761$, reject H_0 and accept H_1. The means are significantly different.

TABLE VII

SUMMARY OF SIGNIFICANCE OF SAMPLE MEANS

	Senior	Junior	Elementary
Senior	-	0.908	2.761[a]
Junior		-	1.405
Elementary			-

[a]Significant at the .05 level.

APPENDIX B

LETTER TO SUPERINTENDENTS

Faculty of Physical Education,
University of Alberta,
Edmonton, Alberta,
April 15, 1966.

The Faculty of Physical Education at the University of Alberta is conducting a study to determine qualifications, responsibilities and programs of physical education teachers in the senior high schools of Alberta.

The study will involve the administration of questionnaires to the Principals, Coordinators or Directors of physical education (where applicable), and the physical education teacher(s) within sixty-five fandomly selected high schools in the province. The principals of all the schools involved in the study will be notified of the survey and arrangements will be made by the examiner to personally collect the completed questionnaires during the early part of May, 1966.

To the best of the writer's knowledge, no previous studies have investigated the qualifications, responsibilities and programs offered by physical education teachers in Alberta. The most recent study was completed in 1955 and investigated only one part of the total topic.

This study can be of value in a variety of ways. It will assist teacher training institutions in determining the actual teaching conditions in the schools. It will provide useful information to other program content in courses currently offered at the university. In this way, prospective teachers may be assisted in adapting programs to meet the needs of the school environment.

Because of this need, it is important that a study be made to determine the actual conditions which exist in the schools of the Province of Alberta.

It should be stressed that the respondents will remain anonymous and no reference will be made to any specific school in the study. At the conclusion of the investigation, results will be sent to all participating schools.

Before proceeding with the study, we are requesting permission to enter the listed schools and to gather the necessary information to complete the study. If this is granted, arrangements will be made with the principals of the various schools to receive their formal ratification.

The study is under the direct supervision of Dr. W. Donald Smith, Director of the Professional Program, Faculty of Physical Education, University of Alberta, Edmonton.

Thank you for your consideration, I remain,

Sincerely yours,

Nestor N. Korchinsky
Graduate Student, Faculty of Physical
Education, University of Alberta.

APPENDIX C

LETTER TO PRINCIPALS

University Athletic Board,
University of Alberta,
Edmonton, Alberta, Canada,
April 15, 1966.

The Faculty of Physical Education at the University of Alberta is conducting a study to determine qualifications, responsibilities and programs of physical education teachers in the senior high schools of Alberta.

The study will involve the administration of questionnaires to the Principals, Coordinators or Directors of physical education (where applicable), and the physical education teacher(s) within sixty-five randomly selected high schools in the province. The principals of all the schools involved in the study will be notified of the survey and arrangements will be made by the examiner to personally collect the completed questionnaires during the early part of May, 1966.

To the best of the writer's knowledge, no previous studies have investigated the qualifications, responsibilities and programs offered by physical education teachers in Alberta. The most recent study was completed in 1955 and investigated only one part of the total topic.

This study can be of value in a variety of ways. It will assist teacher training institutions in determining the actual teaching conditions in the schools. It will provide useful information to other program content in courses currently offered at the university. In this way, prospective teachers may be assisted in adapting programs to meet the needs of the school environment.

Because of this need, it is important that a study be made to determine the actual conditions which exist in the schools of the Province of Alberta.

It should be stressed that the respondents will remain anonymous and no reference will be made to any specific school in the study. At the conclusion of the investigation, results will be sent to all participating schools.

Before proceeding with the study, I am requesting permission to enter your school and to gather the necessary information to complete the study. If this is granted, questionnaires corresponding with this study will be sent to you by mail. It should be mentioned here, that the superintendent of schools has given his permission and, presently, yours is requested.

The study is under the direct supervision of Dr. W. Donald Smith, Director of the Professional Program, Faculty of Physical Education, University of Alberta, Edmonton.

Thank you for your consideration, I remain,

Sincerely yours,

Nestor N. Korchinsky
Graduate Student,
Faculty of Physical Education.

APPENDIX D

PHYSICAL EDUCATION TEACHER QUESTIONNAIRE

PHYSICAL EDUCATION IN THE SECONDARY SCHOOLS OF ALBERTA

SCHOOL: _____

COMMUNITY POPULATION: _____

INSTRUCTIONS FOR THE PHYSICAL EDUCATION TEACHER

IN COMPLETING THIS LIST, THE FOLLOWING SHOULD BE KEPT IN MIND:

(1) ALTHOUGH THIS LIST APPEARS LONG, THE PLAN OF CIRCLING THE CORRECT RESPONSE WILL ENABLE YOU TO COMPLETE IT RAPIDLY.

(2) IT IS NOT EXPECTED THAT YOUR SCHOOL WILL HAVE OUTSTANDING STRENGTH IN ALL PRACTICES.

(3) THE TERM "SENIOR HIGH SCHOOL" OR "SECONDARY SCHOOL" REFERS TO GRADE TEN, ELEVEN, AND TWELVE INCLUSIVE.

(4) THE TERM "PHYSICAL EDUCATION" REFERS TO THE TOTAL PROGRAM: REQUIRED PHYSICAL EDUCATION CLASSES, INTRAMURALS, SPORTS, CORRECTIVE ACTIVITIES AND INTERSCHOLASTIC ATHLETICS. IT INCLUDES HEALTH AND RECREATIONAL ASPECTS OF PHYSICAL EDUCATION, BUT DOES NOT INCLUDE THE SCHOOL HEALTH PROGRAM OF HEALTH INSTRUCTION, HEALTH SERVICES, OR HEALTH SUPERVISION.

CIRCLING THE CORRECT RESPONSE WILL SUFFICE TO GIVE THE INFORMATION NEEDED IN PRACTICALLY EVERY CASE: HOWEVER, ANY SUPPLEMENTAL COMMENTS WILL BE GREATLY APPRECIATED.

PLEASE NOTE:

ALL REPORTS WILL BE TREATED CONFIDENTIALLY AND NO REFERENCE WILL BE MADE IN THE STUDY TO ANY PARTICULAR PERSON OR SCHOOL

THE DATA REQUESTED IN THE FOLLOWING PAGES WILL PERTAIN TO THESE TOPICS:

(A) GENERAL INFORMATION
(B) QUALIFICATIONS
(C) INTRAMURAL PROGRAM
(D) INTERSCHOLASTIC PROGRAM
(E) REQUIRED PROGRAM

GENERAL INFORMATION

Please circle the correct response.

EXAMPLE: Do you include intramurals in your Physical Education Program in your school?

(1.) Yes 2. No

(1) Person responding to questionnaire:

1. Male 2. Female

(2) What grade(s) are you responsible for in teaching physical education?

1. Grade 10 1) Yes 2) No

2. Grade 11 1) Yes 2) No

3. Grade 12 1) Yes 2) No

4. Grades 7 - 9 inclusive (or one or two of the grades)

1) Yes 2) No

5. Grades 1 - 6 inclusive (or grades included)

1) Yes 2) No

6. Others SPECIFY: _____

(3) A. What physical education courses are taught in your school?

1. Physical Education 10 a) Yes b) No

2. Physical Education 20 a) Yes b) No

3. Physical Education 30 a) Yes b) No

4. There are no physical education classes provided:

a) Yes b) No

B. Around what grades do you center your physical education program?

1. Senior High School grades only, where the intramural, inter-scholastic and required classes are for Senior High School grades only.

2. For Junior High School grades where the program is centered on the Junior grades, but Senior High School grades are allowed to participate.

(3) B. 3. Around the Senior High School grades, but Junior High School grades participate together with the Senior High School grades.

4. Others PLEASE SPECIFY:_____

_____

(4) What system does your school use for physical education classes?

1. Daily periods (five times per week)

2. Four times per week

3. Three times per week

4. Two times per week

5. Periods alternating two one week; three the next

6. No regular periods are scheduled.

7. Other SPECIFY:_____

(5) Do you have a personal written statement of the desired student outcomes in terms of the objectives of your program of physical education?

1. Yes 2. No

(6) If yes, is a copy available?

1. Yes 2. No

Where is this kept for reference? PLEASE SPECIFY:_____

(7) Do you have an organized plan of testing and measuring to determine the degree to which pupils are making progress in terms of your program objectives?

1. Yes 2. No

(8) Do you have written tests in physical education classes?

1. Yes 2. No

(9) Do you have skill tests for each pupil and record the tests?

1. Yes 2. No

(10) If you give a percentage mark in physical education, please indicate the areas you mark and what weight the area has on the total mark. (e.g. 10% of the total mark may be for attendance, etc.)

_____

_____

NOTE: Anonymity is assured so please answer accurately.

(11) Are written lesson plans for physical education classes used by yourself?

1. Yes 2. No

(12) If you answered "Yes" to the above question (11) which of the following do you have available?

1. Master yearly plan for all activities taught throughout the year?

   1) Yes 2) No

2. Unit plan for each activity?

   1) Yes 2) No

3. Daily lesson plan for each physical education class?

   1) Yes 2) No

4. Other SPECIFY:_____

(13) Do you use students or squad leaders to assist in teaching large groups?

1. Yes 2. No

(14) If you answered "Yes" do you

Conduct instructional sessions for these leaders?

1. Yes 2. No

(15) If "Yes" to question (14) when do you conduct these sessions?

(A) During regular class periods? 1. Yes 2. No

(B) Outside of regular class periods? 1. Yes 2. No

(16) Do you have co-educational activities?

1. Yes 2. No

(17) Do you let students have a choice of activities throughout the school year?

1. Yes 2. No

(18) Circle the response which applies to your program:

a) Pupils are required to wear gym suits in physical education classes.

1. Yes 2. No

(19) If "Yes" to question (18) answer the following four questions.

a) Does the school provide the gymnasium suits?

1. Yes 2. No

b) Does the school provide the towels?

1. Yes 2. No

c) Does the school launder gym suits and towels?

1. Yes 2. No

d) Do pupils purchase their own gym suits?

1. Yes 2. No

(20) Check the grouping below which most accurately describes the average size of physical education activity classes which you teach:

1. Less than 20
2. 21 - 29
3. 30 - 39
4. 40 - 59
5. 50 and over

(21) Are you in charge of preparing and submitting a yearly budget for physical education in the school?

1. Yes 2. No

If you answered "no" please explain how the yearly budget for physical education is set and by whom?

_____

_____

(22) Is the financial support of the physical education program dependable and reasonably adequate?

1. Yes 2. No

(23) Who sets the yearly budget for physical education?

1. Yourself
2. The Principal
3. The Physical Education Staff
4. Other PLEASE SPECIFY:_____

(24) Do you let the students have a say in the choice of activities that are instructed throughout the year?

1. Yes 2. No

(25) Is there a yearly timetable of class activities on file in the Principal's Office?

1. Yes 2. No

(26) Do you use people outside of the school staff to assist in interscholastic or intramural sports (coaching, managing, etc.)?

1. Yes 2. No

If so, to what extent? PLEASE SPECIFY:_____

NOTE: SINCE NO REFERENCE IS BEING MADE TO NEITHER PERSON NOR SCHOOL, PLEASE ANSWER AS ACCURAGELY AS POSSIBLE.

(27) Is there an adjustment or some consideration given to the teachers who are responsible for intramural or interscholastic activities?

(A) Additional salary or honorarioum

1. Yes 2. No

(B) Reduction of teaching load

1. Yes 2. No

(C) Elimination of some supervising duties?

1. Yes 2. No

(D) School time granted for travelling?

1. Yes 2. No

(E) No consideration

1. Yes 2. No

(28) In physical education the division into classes is determined by:

1. Classification based on knowledge, experience, and ability

2. An approved classification, e.g., McCloy system using weight, height, and size.

3. An age and/or weight distinction.

4. The academic class in which pupils are situated (or division on purely alphabetical basis).

5. No planned classification

6. Other plan: SPECIFY _____

(29) Are medical examinations compulsory for:

(A) All students taking the required programs?

1. Yes 2. No

(B) Students taking part in intramural athletics?

1. Yes 2. No

(C) Students taking part in interscholastic athletics?

1. Yes 2. No

(30) Do you have a corrective program?

1. Yes 2. No

(31) Circle the classification below which most accurately describes the number of class periods each week during which you teach subjects other than physical education:

1. None	4. 10 - 14	7. 25 - 29	10. 40 - 44
2. 1 - 4	5. 15 - 19	8. 30 - 34	
3. 5 - 9	6. 20 - 24	9. 35 - 39	

(32) Circle the classification below which most accurately describes the number of class periods during which you teach physical education in one week:

1. None	4. 10 - 14	7. 25 - 29	10. 40 - 44
2. 1 - 4	5. 15 - 19	8. 30 - 34	
3. 5 - 9	6. 20 - 24	9. 35 - 39	

(33) Circle the classification below which most accurately describes the number of class periods during which you supervise study hall or library in one week:

1. None	4. 10 - 14	7. 25 - 29	10. 40 - 44
2. 1 - 4	5. 15 - 19	8. 30 - 34	
3. 5 - 9	6. 20 - 24	9. 35 - 39	

(34) Circle the classification below which most accurately describes the number of spare class periods you supervise in one week:

1. None	3. Two	5. Four	7. Six or over
2. One	4. Three	6. Five	

(35) Approximately how many hours per week do you spend on preparing lessons, marking, planning, etc., with regards to your teaching duties in the school (average number of hours)?

1. None	4. 8 - 11
2. 1 - 3	5. 12 - 15
3. 4 - 7	6. 16 and over

(36) If your school has intramurals, how many hours per week do you spend on intramural activities?

1. None	4. 8 - 11	7. 20 and over
2. 1 - 3	5. 12 - 15	
3. 4 - 7	6. 16 - 19	

(37) If your school has interscholastic sports how many hours per week do you spend on interscholastic activities per week? (Including travel time, if any.)

1. None	4. 8 - 11	7. 20 and over
2. 1 - 3	5. 12 - 15	
3. 4 - 7	6. 15 - 19	

(38) How many class periods do you spend teaching per week? (Both academic and physical education.)

1. 15 - 18	4. 26 - 29	7. 38 - 41
2. 19 - 21	5. 30 - 33	8. 42 - 45
3. 22 - 25	6. 34 - 37	9. 46 and over

(39) How many hours of other activities (including intramural, interscholastic, administration, marking, planning, etc.) do you spend per week?

1. None	5. 12 - 15	9. 28 - 31
2. 1 - 3	6. 16 - 19	10. 32 - 35
3. 4 - 7	7. 20 - 23	11. 36 and over
4. 8 - 11	8. 24 - 27	

(40) What is the approximate number of students enrolled in physical education 10?

ANSWER: _____

(41) What is the approximate number of students enrolled in Physical Education 20?

ANSWER: _____

(42) If there is a drop-off in number from Physical Education 10 to Physical Education 20, explain why this drop-off occurs?

_____

(43) Does your school have sports days where an entire day or half-day is devoted to Physical Education activity?

1. Yes 2. No

If "Yes" give additional information such as what time of day and week these sport days are held, for whom, and for what purpose:

_____

NOTE: MORE THAN HALF OF THE QUESTIONNAIRE HAS BEEN COMPLETED.

B. QUALIFICATIONS

(1) How many years of teacher training beyond your high school education do you have?

1. None
2. One
3. Two
4. Three
5. Four
6. Five
7. Six or more

(2) What certificate do you presently hold?

1. Junior E
2. Standard E
3. Standard S
4. Professional

(3) A. Degrees obtained:
   1. No degree
   2. Bachelor Degree(s)
      a) B.P.E.
      b) B.Ed.
      c) Other SPECIFY _____
   3. Master Degree
   4. Doctor Degree

(3) B. While taking your teacher training what pattern were you in?

1. Major in Physical Education in Education?
2. Minor in Physical Education in Education?
3. Degree program in a school or Faculty of Physical Education?
4. Other PLEASE SPECIFY: _____

(4) Date of last year in which you completed your course work on your degree or diploma?

1. Have not completed course work to a degree or diploma

Have completed:

2. Before 1945
3. 1946 - 1950
4. 1951 - 1955
5. 1956 - 1960
6. 1961 - 1963
7. 1964 - 1966

(5) Date of last year in which you took an evening credit course, summer school or refresher course:

1. Have taken no course work since my preliminary training.
2. Before 1945
3. 1946 - 1950
4. 1951 - 1955
5. 1956 - 1960
6. 1961 - 1963
7. 1964 - 1966

(6) Years of teaching experience?

1. None	5. Four	9. Eight
2. One	6. Five	10. Nine
3. Two	7. Six	11. Ten or more
4. Three	8. Seven	

(7) Are you the only physical education teacher in the school?

1. Yes 2. No

(8) In the group of subjects below, please circle those subjects or subjects of similar titles which you completed in college or university or in some other institution of higher learning.

NOTE: THESE ARE EITHER HALF YEAR OR FULL YEAR COURSES, NOT TOPICS YOU MAY HAVE COVERED WHILE TAKING ANOTHER COURSE.

1. No courses
2. Human Anatomy
3. Personal Hygiene or Health
4. Human Physiology
5. General Psychology
6. General Sociology
7. Aquatics
8. Games of low organization
9. Gymnastics
10. Rhythmical activities
11. Self-defense activities (boxing, wrestling, etc.)
12. Coaching methods--(Basketball, Football, etc.)
13. Administration of Physical Education.
14. Community Recreation
15. Correctives, individual program adaptation
16. Growth and Development of the Child
17. Kinesiology, Applied Anatomy
18. History and Principles of Physical Education
19. Tests and Measurements
20. Physical Education Curriculum (for school)
21. Research in Physical Education
22. Student Teaching in Physical Education
23. Other PLEASE SPECIFY TITLES: _____

_____

(9) Of the courses you have taken, which have you relied upon or have made best use of?

_____

(10) Of the courses you have taken, which have you <u>not</u> relied on or made use of?

_____

(11) What courses would you like to have been taught in your preparatory years?

_____

(12) In the following list of subjects, other than physical education, please CIRCLE those you are teaching this year.

1. None
2. Art
3. Drama
4. Economics
5. Geography
6. Hygiene or Health
7. Biology
8. Business or Commerce
9. Chemistry
10. Literature
11. English, Speech, Journalism
12. Sociology
13. Science
14. French
15. Law
16. Psychology
17. German
18. History or Social Studies
19. Latin
20. Mathematics
21. Music
22. Physics
23. Ukrainian
24. Others SPECIFY:

_____

C. INTRAMURAL SPORTS

(1) Do you have intramural sports in your school?

1. Yes 2. No

If you answered "Yes" to question (1) complete the following questions (1 - 9)

(2) Are you responsible for the conducting of the intramural program?

1. Yes 2. No

If "No" explain who is responsible: _____

(3) During what time of the day do you conduct intramurals?

1. Before school
2. Noon hour
3. Late class period
4. After school
5. Night
6. Saturdays
7. Others SPECIFY: _____

(4) Does every student in your high school have an opportunity for participating in a variety of intramural sports?

1. Yes 2. No

If "No" explain why every student in your high school does not have an equal opportunity for participating in a variety of intramural sports.

_____

(5) Does the school have awards for intramural sports?

1. Yes 2. No

(6) How many physical education activities do you personally conduct in the intramural program?

1. None
2. 1 - 3
3. 4 - 7
4. 8 - 11
5. 12 - 15
6. 16 - 19
7. 20 and over

(7) How many intramural sport activities are included in the intramural program?

1. None
2. 1 - 3
3. 4 - 7
4. 8 - 11
5. 12 - 15
6. 16 - 19
7. 20 and over

(8) Intramural teams are selected on the basis of:

1. Achievement or motor efficiency test.
2. McCloy or other size, height, weight classification.
3. Alphabetically
4. By academic class grouping
5. Geographical or living area distinction
6. Others: SPECIFY: _____

(9) What are the regulations concerning participation in your intramural sports program?

_____

D. INTERSCHOLASTIC SPORTS

(1) Do you conduct interscholastic sports in your school?

1. Yes 2. No

If you answered "Yes" to the above question, please answer the remaining questions (questions 2 - 9).

(2) What periods are used for practice of interscholastic athletics?

1. Noon hour
2. Late class periods
3. After school
4. Night
5. Physical education classes
6. Other SPECIFY: _____

(3) How long are your practices for interscholastic teams (average)?

1. One-half hour
2. One hour
3. One/one-half hour
4. Two hours
5. More than two hours
6. Others: SPECIFY: _____

(4) Are all students playing interschool sports insured against injury which may occur while playing for the school?

1. Yes 2. No

(5) Do you have a physician present at all your interscholastic games?

1. Yes 2. No

(6) Are boys and girls who participate in interscholastic athletics required to attend regular classes in physical education?

1. Yes 2. No

If you answered "No" to the question (6), explain the policy regarding those students who participate in interscholastics and at the same time are not required to attend regular classes in physical education.

_____

(7) For interschool games, transportation is generally by:

1. School operated buses
2. Bus chartered by the school
3. Automobile transportation organized by the school
4. Automobile transportation organized by the pupils or parents
5. Pupils organizing own transportation
6. Others SPECIFY: _____

(8) What are the regulations concerning participation in your interscholastic sports program?

_____

(9) How many years may a boy or girl compete in interscholastic athletics while in high school?

1. One 4. Four
2. Two 5. Five
3. Three 6. Unlimited

E. REQUIRED PROGRAM

INSTRUCTIONS: PLEASE COMPLETE THE ACCOMPANYING CHART USING THE FOLLOWING INSTRUCTIONS:

PLEASE INDICATE BY CHECK MARKS THOSE ACTIVITIES WHICH YOU INCLUDE IN YOUR REQUIRED, INTRAMURAL, AND INTERSCHOLASTIC PROGRAMS. THEN INDICATE ON THE CALENDAR WHAT MONTH(S) AND FOR HOW LONG YOU CONDUCT YOUR REQUIRED PROGRAM ONLY.

PLEASE NOTE THE EXAMPLE: BASKETBALL IS INCLUDED IN ALL THE PROGRAMS. IN THE REQUIRED PROGRAM BASKETBALL STARTS IN THE SECOND WEEK IN SEPTEMBER AND FINISHES AT THE END OF MARCH.

ANOTHER EXAMPLE: ICE HOCKEY IS INCLUDED IN THE REQUIRED, INTRAMURAL, AND INTERSCHOLASTIC PROGRAMS. THE REQUIRED PROGRAM OF ICE HOCKEY STARTS IN THE THIRD WEEK OF OCTOBER AND FINISHES AT THE END OF THE FIRST WEEK IN APRIL.

PLEASE COMPLETE THE REMAINING.

ACTIVITY CHART

REQUIRED PROGRAM

ACTIVITIES	REQUIRED PROGRAM	INTRAMURAL PROGRAM	INTERSCHOLASTIC PROGRAM	SEPT.	OCT.	NOV.	DEC.	JAN.	FEB.	MARCH	APRIL	MAY	JUNE
EXAMPLE:													
BASKETBALL	✓	✓	✓										
ICE HOCKEY	✓	✓	✓										
1. Archery													
2. Badminton													
3. Baseball													
4. Basketball													
5. Bowling													
6. Boxing													
7. Curling													
8. Calisthenics													
9. Dance: Modern													
10. Dance: Square													
11. Fencing													
12. Football (touch)													
13. Football (tackle)													
14. Games and Relays													
15. Golf													
16. Gym. Apparatus													
17. Handball													
18. Ice Hockey													
19. Field Hockey													
20. Marching Tactics													
21. Table Tennis													
22. Self-testing Activities													
23. Skiing													
24. Soccer													
25. Softball													
26. Speedball													
27. Swimming													
28. Tobogganing													
29. Tennis													
30. Track and Field													
31. Trampoline													
32. Tumbling													
33. Volleyball													
34. Weight Lifting													
35. Wrestling													

APPENDIX E

PRINCIPAL QUESTIONNAIRE

PHYSICAL EDUCATION IN THE SECONDARY SCHOOLS OF ALBERTA

SCHOOL: _____

INSTRUCTIONS FOR THE PRINCIPAL

IN COMPLETING THIS LIST, THE FOLLOWING SHOULD BE KEPT IN MIND:

(1) ALTHOUGH THIS LIST APPEARS LONG, THE PLAN OF CIRCLING THE CORRECT RESPONSE WILL ENABLE YOU TO COMPLETE IT RAPIDLY.

(2) IT IS NOT EXPECTED THAT YOUR SCHOOL WILL HAVE OUTSTANDING STRENGTH IN ALL PRACTICES.

(3) THE TERM "SENIOR HIGH SCHOOL" OR "SECONDARY SCHOOL" REFERS TO GRADE TEN, ELEVEN, AND TWELVE INCLUSIVE.

(4) THE TERM "PHYSICAL EDUCATION" REFERS TO THE TOTAL PROGRAM: REQUIRED PHYSICAL EDUCATION CLASSES, INTRAMURALS, SPORTS, CORRECTIVE ACTIVITIES, AND INTERSCHOLASTIC ATHLETICS. IT INCLUDES HEALTH AND RECREATIONAL ASPECTS OF PHYSICAL EDUCATION, BUT DOES NOT INCLUDE THE SCHOOL HEALTH PROGRAM OF HEALTH INSTRUCTION, HEALTH SERVICES, OR HEALTH SUPERVISION.

CIRCLING THE CORRECT RESPONSE WILL SUFFICE TO GIVE THE INFORMATION NEEDED IN PRACTICALLY EVERY CASE; HOWEVER, ANY SUPPLEMENTAL COMMENTS WILL BE GREATLY APPRECIATED.

PLEASE NOTE:

ALL REPORTS WILL BE TREATED CONFIDENTIALLY AND NO REFERENCE WILL BE MADE IN THE STUDY TO ANY PARTICULAR PERSON OR SCHOOL.

THE DATA REQUESTED IN THE FOLLOWING PAGES WILL PERTAIN TO THESE TOPICS:

(1) GENERAL INFORMATION CONCERNING THE SCHOOL.

(2) FINANCING THE TOTAL PROGRAM OF PHYSICAL EDUCATION.

GENERAL INFORMATION

EXAMPLE: DO YOU INCLUDE INTRAMURALS IN YOUR PHYSICAL EDUCATION PROGRAM IN YOUR SCHOOL?

(1.) Yes 2. No

(1) What grades are taught in your school?

1. Senior high grades only (10 - 12)?
2. Junior and senior grades (7 - 12)?
3. Elementary, junior and senior grades (1 - 12)?
4. Others SPECIFY: _____

(2) Do you have a specially trained physical education teacher or teachers on staff; that is, do you have a person teaching physical education who has had physical education as a major or minor in the Faculty of Education or has had training in a school or Faculty of Physical Education?

1. Yes 2. No

(3) If you answered "Yes" to the above question (2), what grade(s) is/are he/they responsible for?

1. Senior high grades only (10-12)?
2. Junior and senior grades (7 - 12)?
3. Elementary, junior, and senior grades (1 - 12)?
4. Others SPECIFY: _____

(4) If you answered "No" to question (2) is:

1. Physical education taught by home room teacher?
2. Physical education conducted and organized by a person who has had no special training in physical education?
3. There is no scheduled weekly classes of physical education in the school?
4. Others SPECIFY: _____

(5) What is the pupil enrollment of your senior high grades (10, 11 and 12 inclusive)? Please state the number.

_____

(6) Approximately what numbers are transported by school bus daily?

Answer: _____

(7) What is the average length of daily class periods of academic subjects? Please circle the most appropriate answer.

1. 30 - 33 minutes	4. 42 - 45 minutes	7. 54 - 57 minutes
2. 34 - 37 minutes	5. 46 - 49 minutes	8. 58 - 61 minutes
e. 38 - 41 minutes	6. 50 - 53 minutes	9. 62 minutes & over

(8) What is the average length of class periods in physical education?

1. 30 - 33 minutes	4. 42 - 45 minutes	7. 54 - 57 minutes
2. 34 - 37 minutes	5. 46 - 49 minutes	8. 58 - 61 minutes
3. 38 - 41 minutes	6. 50 - 53 minutes	9. 62 minutes & over

(9) What system of marking does your school use in general school subjects?

1. Letter grade (e.g., H, A, B, C, D,)
2. Satisfactory or Unsatisfactory
3. Percent
4. Credit
5. Other SPECIFY: _____

(10) What system of marking does your school use in physical education?

1. Letter grade (e.g., H, A, B, C, D,)
2. Satisfactory or Unsatisfactory
3. Percent
4. Credit
5. Other SPECIFY: _____

(11) Are physical education and athletics recognized by your school as an integral part of the complete education program?

1. Yes 2. No

(12) Is there a yearly timetable of class activities in physical education on file in your office?

1. Yes 2. No

(13) Does the community help to support the school teams? (Either by attending team games or by sponsoring bingos, drives, etc.)

1. Yes 2. No

FINANCING THE TOTAL PROGRAM OF PHYSICAL EDUCATION

(1) Please indicate by circling the correct number the policies that apply to the administration of the fiscal program for physical education:

(A) All funds are collected and administered by a faculty member:

1. Yes 2. No

(B) There is centralized purchasing with purchases submitted to bids:

1. Yes 2. No

(C) Accurate inventories of the athletic equipment and supplies are available:

1. Yes 2. No

(D) Approved business forms are available and are used:

1. Yes 2. No

(E) Vouchers are required in all transactions:

1. Yes 2. No

(F) All monies in receipts and expenditures operate through a general school fund:

1. Yes 2. No

(G) The plan is a part of the School Board Fiscal Program:

1. Yes 2. No

(H) The plan provides optimum educational opportunities for pupils in planning, requisitioning, budgeting, accounting and auditing:

1. Yes 2. No

(2) Circle one of the following statements which most clearly represents School Board Policy concerning use of tax funds for financial support of the Physical Education Program.

The School Board:

1. Provides a general budget for physical education.

2. Provides for the basic needs of the <u>required class work</u>.

3. Provides the basid needs of the class and <u>intramural program</u> (which may include non-athletic activities).

4. Provides for the basic needs of the <u>total program</u> for all pupils.

5. Provides only the facilities and the teachers or teacher (little or no provision is made for equipment or materials).

(3) Schools Boards usually set a budget for physical education in one of three different ways;

1. A budget covering materials for instruction only, or
2. A general budget covering the total physical education program, or
3. A budget set on a per pupil per year basis.

In one of the classifications below, please indicate the physical education budget for your school:

1. Total amount budgeted for materials of instruction ($_____)

2. General Budget ($_____) by school board for the total program of physical education.

3. Amount per pupil per year ($_____) by School Board.

4. Other SPECIFY: _____

(4) Are all athletic monies, including gate receipts, considered as Student Union Funds?

1. Yes 2. No

(5) Are proper records kept of all athletic monies?

1. Yes 2. No

(6) Is the financial support of the Physical Education Program dependable and reasonably adequate?

1. Yes 2. No

(7) Is a yearly audit of the records made?

1. Yes 2. No

FINANCING THE TOTAL PROGRAM OF PHYSICAL EDUCATION

WILL YOU PLEASE INDICATE BY CHECK MARKS (✓) THE FOLLOWING INFORMATION ON THE FINANCING OF THE TOTAL PHYSICAL EDUCATION PROGRAM EXCLUDING SALARIES AND CAPITAL EXPENDITURES.

(A) THE SOURCES OF FUNDS FOR PHYSICAL EDUCATION.
(B) WHAT PROGRAM OR PROGRAMS THE FUNDS SUPPORT, AND
(C) THE EXTENT TO WHICH THE SOURCE IS DEPENDED UPON.

SOURCES OF FINANCIAL SUPPORT FOR PROGRAM NEEDS OTHER THAN SALARIES AND CAPITAL EXPENDITURES (CHECK APPROPRIATE SPACES)	PROGRAM FOR WHICH THE SOURCE IS AVAILABLE						EXTENT OF DEPENDENCE ON THE SOURCE		
	Req. Class Work		Intra-murals		Inter-school		High Degree	Moderate Degree	low Degree
	Yes	No	Yes	No	Yes	No			
A. School Board Funds derived from taxation									
B. Fees paid by all students (athletic association or student fees.)									
C. Fees paid by participating students									
D. Gate receipts from interschool games									
E. Receipts from benefit shows, entertainment, etc.									
F. A central school fund from many sources									
G. Commercial and individual donations									
H. Sales of concessions and program ads.									
I. Clubs									
J. Others: Specify:									

APPENDIX F

LETTER OF ANNOUNCEMENT

Faculty of Physical Education
University of Alberta
Edmonton, Alberta, Canada,
April 27, 1966.

Dear

RE: QUESTIONNAIRES ON THE QUALIFICATIONS, RESPONSIBILITIES, AND PROGRAMS OF PHYSICAL EDUCATION TEACHERS IN ALBERTA

My colleague and I are on our way to personally gather the questionnaires sent to you dated April 20, 1966.

Since all of us are apt to forget, this will serve as a short reminder on our part to ask your cooperation in having the questionnaires completed by the time of our arrival.

My plans are to cover the Peace River, High Prairie, and Grande Prairie district during the first week in May. The area north and east of Edmonton will be covered during the third and fourth weeks in May. The southern half of the province will be covered by my colleague, Mr. Charles Moser, during the first two weeks in May.

Your cooperation in having the questionnaires ready would be greatly appreciated since the amount of time that is available to us in completing this survey is quite limited.

Thanking you in advance, I remain,

Sincerely yours,

Nestor Korchinsky
University of Alberta,
Edmonton, Alberta.

APPENDIX G

LETTER ACCOMPANYING QUESTIONNAIRE

Faculty of Physical Education
University of Alberta,
Edmonton, Alberta, Canada,
April 20, 1966.

Dear

RE: FACULTY OF PHYSICAL EDUCATION QUESTIONNAIRE ON QUALIFICATIONS, RESPONSIBILITIES AND PROGRAMS OF PHYSICAL EDUCATION TEACHERS IN ALBERTA.

Please find enclose, the questionnaires which I referred to you in my letter of April 13th, 1966.

Following are the instructions for their administration:

1) Please retain the questionnaire titled, "Instructions for the Principal."

2) Distribute the questionnaire(s) with the title, "Instructions for the Physical Education Teacher." If by chance your school does not have a specially trained physical education teacher, randomly select a teacher who has physical education as one of his subjects and have him complete the questionnaire.

3) The third questionnaire may or may not be included in this envelope. It is titled, "Instructions for the Physical Education Director," and it is to be given to the person in charge of coordinating the physical education staff and program in the high school. This will probably be restricted to the larger city schools.

Since I hope to personally gather these questionnaires during the early part of May, 1966, would you kindly have them completed and in your office within the next ten days.

Thank you for your cooperation and I am looking forward to meeting with you.

Sincerely yours,

Nestor Korchinsky,
Graduate Student
Faculty of Physical Education

APPENDIX H

GENERAL ADDITIONAL INFORMATION

GENERAL ADDITIONAL INFORMATION

The physical education teacher and principal were asked additional questions concerning the school program and teaching procedures. This section is reserved for their responses to these questions.

A number of interesting results were obtained when questions were asked pertaining to the method in which the physical education teacher conducted his classes.

Only 16 per cent of the total responses indicated that they had written personal statements as to desirable student outcomes from physical education. Of this, 12 per cent answered affirmatively to having copies available.

Sixty-three per cent of the entire sample indicated the use of lesson plans for physical education. The breakdown by categories was 72, 57, and 61 per cent for Category I(S), Category II(JS), and Category III(EJS) respectively. When asked the type of plans used, 39 per cent of the total indicated a master yearly plan, 36 per cent a unit plan for each activity, and 39 per cent admitted to using daily lesson plans.

The use of student squad leaders did not appear to be popular, with only 50 per cent of the total responses making use of them. By classification, Category II(JS) made the most use of leaders with 71 per cent as compared with the responses of 44 per cent from the other two groups. Of the 50 per cent affirmative, 21 per cent held instructional classes for their leaders, 12 per cent during regular class

periods and nine per cent out of regular class periods.

Principals were asked if a yearly timetable of class activities in physical education was on file in their office. Thirty-eight per cent of the principals answered "yes" while only 16 per cent of the physical education teachers answered affirmatively. The discrepancy could have been due to the lack of distinct meaning as to what constitutes a timetable.

Thirty-four per cent of the total responses indicated that people from outside the school staff assisted in either interscholastic or intramural athletics. Of this, 55 per cent of Category I(S) depended on outside help, while 21 per cent of Category II(JS) and 29 per cent of Category III(EJS) admitted to using outside help.

Only one school in the entire sample answered "yes" to making medical examinations compulsory for the required program and one answered affirmatively in the intramurals. However, 42 per cent of the schools indicated that medical examinations were compulsory for interscholastic, 55 per cent of Category I(S) made medicals compulsory as did 57 per cent of Category II(JS) and only 29 per cent of Category III(EJS).

Validity

Both the physical education teacher and the principal were asked, firstly, if a schedule of the physical education program was on file in the principal's office and, secondly, if the financial support of the physical education program was adequate and reasonable. To the first question--the timetable on file in the principal's office, of the eighteen

sampled schools in Category I(S), twelve of the sample agreed on the answer, and six disagreed. In Category II(JS), ten teachers and principals agreed to the answer and four disagreed. For Category III(EJS) twenty respondents agreed on their responses while fourteen disagreed. For the total responses only forty-two of the sample agreed and the remaining twenty-four disagreed. The discrepancy could have arisen as to what type of schedule was on file and also in determining to what degree a report is considered a schedule.

Regarding the second question on financial support, which is a judgement opinion, in Category I(S) fourteen school principals and physical education teachers agreed to their answer which was eleven affirmatively and three negatively. As for Category II(JS), ten agreed, six positively and two negatively. Category III(EJS) showed that eleven teachers and principals agreed that financial support was adequate while eight agreed that the support was not adequate. Seventy-seven per cent of Category I(S) teachers and principals agreed, 57 per cent of Category II(JS) and 59 per cent of Category III(EJS) agreed. Of the people who agreed in Category I(S), 78 per cent admitted that the financial support was adequate, 75 per cent of Category II(JS), and 58 per cent of Category III(EJS) agreed that the support was adequate and dependable. It is noticeable that there is a decrease in the percentages of positive responses from Category I(S) to Category III(EJS). This may imply that monies may not be as readily available for the last two categories.

APPENDIX I

YEARLY TIMETABLE FOR REQUIRED PROGRAM

TOTAL RESPONSE

YEARLY TIMETABLE FOR THE REQUIRED PROGRAM
TOTAL RESPONSES FROM THE SIXTY-SIX SCHOOLS[1]

Activity	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June
Touch Football	Six weeks									
Volleyball		Nine weeks								
Basketball			Fourteen weeks							
Basketball				Eleven weeks						
Badminton[2] Tumbling					Ten weeks					
Badminton[2] Tumbling						Seven weeks				
Badminton							Six weeks			
Track & Field								Seven weeks		
Softball									Five weeks	
Softball[2] Swimming										Three & half weeks

[1]The activity taught by the most number of schools in each month was averaged in the number of weeks' duration and appears on the timetable.

[2]Both activities appear when they were tied with the number of schools offering the activity during that particular month.

APPENDIX J

PROGRAM OF ACTIVITIES PER CATEGORY

PROGRAM OF ACTIVITIES--CATEGORY I
RESPONSES FROM EIGHTEEN SCHOOLS

Activity	Required Program: Schools Conducting Each Activity		Intramural Program: Schools Conducting Each Activity		Interschool Program: Schools Conducting Each Activity	
	Total	Percent	Total	Percent	Total	Percent
Archery	0	0.0	0	0.0	0	0.0
Badminton	12	66.7	10	55.6	10	55.6
Baseball	2	11.1	1	5.6	1	5.6
Basketball	15	83.5	13	72.3	15	83.5
Bowling	2	11.1	2	11.1	2	11.1
Boxing	0	0.0	0	0.0	0	0.0
Curling	0	0.0	6	33.3	8	44.4
Calisthenics	12	66.7	2	11.1	3	16.7
Modern Dance	4	22.2	2	11.1	0	0.0
Square Dance	3	16.7	1	5.6	0	0.0
Fencing	0	0.0	1	5.6	0	0.0
Touch Football	11	61.2	7	38.9	1	5.6
Tackle Football	1	5.6	1	5.6	6	33.6
Games and Relays	8	44.4	1	5.6	0	0.0
Golf	1	5.6	2	11.1	3	16.7
Gymnastics	15	83.5	5	27.8	1	5.6
Handball	1	5.6	2	11.1	0	0.0
Ice Hockey	3	16.7	1	5.6	0	0.0
Field Hockey	3	16.7	1	5.6	0	0.0
Marching	1	5.6	1	5.6	0	0.0
Table Tennis	4	22.2	7	38.9	0	0.0
Self-Testing Act	4	22.2	1	5.6	0	0.0
Skiing	0	0.0	1	5.6	0	0.0
Soccer	8	44.4	3	16.7	2	11.1

CATEGORY I (Continued)

Activity	Required Program Schools Conducting Each Activity Total	Required Program Schools Conducting Each Activity Percent	Intramural Program Schools Conducting Each Activity Total	Intramural Program Schools Conducting Each Activity Percent	Interschool Program Schools Conducting Each Activity Total	Interschool Program Schools Conducting Each Activity Percent
Softball	12	66.7	9	50.0	3	16.7
Speedball	3	16.7	2	11.1	0	0.0
Swimming	9	50.0	3	16.7	2	11.1
Tobogganing	0	0.0	1	5.6	0	0.0
Tennis	1	5.6	1	5.6	1	5.6
Track & Field	13	72.3	7	38.9	11	61.2
Trampoline	7	38.9	2	11.1	0	0.0
Tumbling	13	72.3	3	16.7	2	11.1
Volleyball	16	88.9	15	83.5	8	44.4
Weight Lifting	4	22.2	3	16.7	0	0.0
Wrestling	5	27.8	1	5.6	0	0.0

PROGRAM OF ACTIVITIES--CATEGORY II
RESPONSES FROM FOURTEEN SCHOOLS

Activity	Required Program Schools Conducting Each Activity Total	Required Program Schools Conducting Each Activity Percent	Intramural Program Schools Conducting Each Activity Total	Intramural Program Schools Conducting Each Activity Percent	Interschool Program Schools Conducting Each Activity Total	Interschool Program Schools Conducting Each Activity Percent
Archery	2	14.6	1	7.1	0	0.0
Badminton	14	100.0	8	57.3	5	35.6
Baseball	0	0.0	0	0.0	1	7.1
Basketball	14	100.0	12	85.7	13	92.7
Bowling	0	0.0	2	14.6	1	7.1
Boxing	0	0.0	0	0.0	0	0.0
Curling	1	7.1	6	42.9	4	28.5
Calisthenics	8	57.3	2	14.6	2	14.6
Modern Dance	3	21.4	1	7.1	0	0.0
Square Dance	3	21.4	2	14.6	0	0.0
Fencing	0	0.0	0	0.0	0	0.0
Touch Football	10	71.4	5	35.6	1	7.1
Tackle Football	0	0.0	0	0.0	1	7.1
Games & Relays	4	28.5	0	0.0	0	0.0
Golf	2	14.6	1	7.1	0	0.0
Gymnastics	12	85.7	3	21.4	1	7.1
Handball	0	0.0	1	7.1	0	0.0
Ice Hockey	0	0.0	1	7.1	2	14.6
Field Hockey	1	7.1	1	7.1	0	0.0
Marching	0	0.0	0	0.0	0	0.0
Table Tennis	3	21.4	6	42.9	0	0.0
Self-Testing Act	2	14.6	0	0.0	0	0.0
Skiing	0	0.0	0	0.0	0	0.0

CATEGORY II (Continued)

Activity	Required Program Schools Conducting Each Activity Total	Required Program Schools Conducting Each Activity Percent	Intramural Program Schools Conducting Each Activity Total	Intramural Program Schools Conducting Each Activity Percent	Interschool Program Schools Conducting Each Activity Total	Interschool Program Schools Conducting Each Activity Percent
Soccer	7	50.0	1	7.1	0	0.0
Softball	10	71.4	6	42.9	2	14.6
Speedball	2	14.6	0	0.0	0	0.0
Swimming	4	28.5	0	0.0	0	0.0
Tobogganing	0	0.0	0	0.0	0	0.0
Tennis	1	7.1	0	0.0	0	0.0
Track & Field	11	78.6	6	42.9	10	71.4
Trampoline	0	0.0	0	0.0	0	0.0
Tumbling	14	100.0	2	14.6	1	7.1
Volleyball	13	92.7	9	64.3	4	28.5
Weight Lifting	3	21.4	1	7.1	0	0.0
Wrestling	5	35.6	4	28.5	2	14.6

PROGRAM OF ACTIVITIES--CATEGORY III
RESPONSES FROM THIRTY-FOUR SCHOOLS

Activity	Required Program Schools Conducting Each Activity		Intramural Program Schools Conducting Each Activity		Interschool Program Schools Conducting Each Activity	
	Total	Percent	Total	Percent	Total	Percent
Archery	0	0.0	0	0.0	0	0.0
Badminton	22	64.7	15	44.2	14	41.3
Baseball	10	29.1	5	14.7	4	11.5
Basketball	27	70.4	17	50.0	26	76.5
Bowling	0	0.0	0	0.0	0	0.0
Boxing	0	0.0	0	0.0	0	0.0
Curling	8	23.5	10	29.9	14	41.3
Calisthenics	15	44.2	1	2.9	2	5.9
Modern Dance	5	14.7	0	0.0	0	0.0
Square Dance	5	14.7	0	0.0	0	0.0
Fencing	0	0.0	0	0.0	0	0.0
Touch Football	21	61.8	10	29.9	6	17.6
Tackle Football	1	2.9	0	0.0	1	2.9
Games & Relays	10	29.9	0	0.0	2	5.9
Golf	0	0.0	0	0.0	0	0.0
Gymnastics	12	35.1	1	2.9	0	0.0
Handball	1	2.9	0	0.0	0	0.0
Ice Hockey	0	0.0	0	0.0	0	0.0
Marching	0	0.0	0	0.0	0	0.0
Table Tennis	3	8.8	11	32.3	0	0.0
Self-Testing Act	1	2.9	0	0.0	0	0.0
Skiing	0	0.0	0	0.0	0	0.0

CATEGORY III (Continued)

Activity	Required Program: Schools Conducting Each Activity Total	Required Program: Schools Conducting Each Activity Percent	Intramural Program: Schools Conducting Each Activity Total	Intramural Program: Schools Conducting Each Activity Percent	Interschool Program: Schools Conducting Each Activity Total	Interschool Program: Schools Conducting Each Activity Percent
Soccer	16	47.1	3	8.8	2	5.9
Softball	24	70.6	11	32.3	13	38.2
Speedball	2	5.9	0	0.0	0	0.0
Swimming	0	0.0	1	2.9	0	0.0
Tobogganing	0	0.0	0	0.0	0	0.0
Tennis	0	0.0	0	0.0	0	0.0
Track & Field	24	70.6	9	26.4	22	64.7
Tumbling	25	73.6	2	5.9	1	2.9
Trampoline	0	0.0	0	0.0	0	0.0
Volleyball	28	82.4	17	50.0	1	2.9
Weight Lifting	0	0.0	0	0.0	0	0.0
Wrestling	3	8.8	1	2.9	0	0.0

APPENDIX K

YEARLY TIMETABLE FOR REQUIRED PROGRAMS FOR ALL CATEGORIES

YEARLY TIMETABLE FOR THE REQUIRED PROGRAM

CATEGORY I[1]

Activity	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	April	May	June
Touch Football	Six weeks									
Volleyball		Eleven weeks								
Basketball			Fourteen weeks							
Basketball				Eleven weeks						
Gymnasium[2] Tumbling					Eight weeks					
Gymnasium[2] Tumbling						Six weeks				
Badminton							Seven weeks			
Track & Field								Seven weeks		
Softball									Five weeks	
Swimming										Three weeks

[1]The sport taught by the greatest number of schools in Category I for each month was marked on the timetable.

[2]Both activities appear when they were tied with the number of schools in Category I(S) offering the activity during that particular month.

YEARLY TIMETABLE FOR THE REQUIRED PROGRAM

CATEGORY II[1]

Activity	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
Touch Football	Seven weeks									
Volleyball		Six weeks								
Basketball			Fifteen weeks							
Basketball[2] Gymnasium				Seven weeks						
Badminton[2] Tumbling					Nine weeks					
Badminton						Five weeks				
Badminton							Six weeks			
Track & Field								Six weeks		
Track & Field									Seven weeks	
Softball										Four weeks

[1]The sport taught by the greatest number of schools in Category II for each month was marked on the timetable.

[2]Both activities appear when they were tied with the number of schools in Category II(JS) offering the activity during that particular month.

YEARLY TIMETABLE FOR THE REQUIRED PROGRAM

CATEGORY III[1]

Activity	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	June
Touch Football	Six weeks									
Volleyball		Nine weeks								
Basketball			Fifteen weeks							
Basketball				Eleven weeks						
Volleyball[2] Badminton					Twelve weeks					
Tumbling						Seven weeks				
Badminton							Seven weeks			
Track & Field								Eight weeks		
Softball									Six weeks	
Softball[2] Baseball										Four Weeks

[1]The sport taught by the greatest number of schools in Category III for each month was marked on the timetable.

[2]Both activities appear when they were tied with the number of schools in Category III(EJS) offering the activity during that particular month.

APPENDIX L

COURSES OF STUDY COMPLETED BY INDIVIDUAL PHYSICAL EDUCATION TEACHERS

COURSES COMPLETED DURING TEACHER TRAINING FOR ALL SIXTY-SIX RESPONSES

Course	Total Response			Category I			Category II			Category III		
	Yes	No	% "Yes" Schools Each Course	Yes	No	% "Yes" Schools Each Course	Yes	No	% "Yes Schools Each Course	Yes	No	% "Yes" Schools Each Course
No subject	4	62	6.0	2	16	11.1	1	13	7.1	1	33	2.9
Human Anatomy	20	46	30.3	8	10	44.4	7	7	50.0	5	29	14.7
Personal Hygiene	43	23	65.1	14	4	77.8	10	4	71.4	19	15	55.9
Human Physiology	19	47	28.8	7	11	38.9	7	7	50.0	5	29	14.7
General Psychology	48	18	72.7	16	2	88.9	11	3	78.6	21	13	61.8
General Sociology	40	26	60.6	11	7	61.2	8	6	57.3	21	13	61.8
Aquatics	25	41	37.8	9	9	50.0	8	6	57.3	8	26	23.5
Games of Low Org.	37	29	56.1	8	10	44.4	9	5	64.3	20	14	58.9
Gymnastics	40	26	60.6	13	5	72.3	11	3	78.6	16	18	47.1
Rhythmical Activities	29	37	43.9	8	10	44.4	8	6	57.3	13	21	38.2
Self-Defence Act.	23	43	34.8	9	9	50.0	7	7	50.0	7	27	20.6
Coaching Methods	36	30	54.5	13	5	72.3	10	4	71.4	13	21	38.2
Adminis. of P.E.	36	30	54.5	14	4	77.8	12	2	85.7	10	24	29.1
Community Rec'n	17	49	25.6	4	14	22.2	7	7	50.0	6	28	17.6
Correctives	12	54	18.2	6	12	33.3	5	9	35.6	1	33	2.9
Growth & Develop.	19	47	28.8	6	12	33.3	6	8	42.9	7	27	20.6
Kinesiology	17	49	25.6	7	11	38.9	6	8	42.9	4	30	11.7
History of P.E.	36	30	54.5	14	4	77.8	11	3	78.6	11	23	32.3
Tests & Measurements	29	37	43.9	10	8	55.6	7	7	50.0	12	22	35.1
P.E. Curriculum	26	40	39.4	11	7	61.2	6	8	42.9	9	25	26.4
Research in P.E.	7	59	10.6	4	14	22.2	3	11	21.4	0	34	0.0
Student Teaching	32	34	48.4	11	7	61.2	9	5	64.3	12	22	35.1
Others	2	64	3.2	2	16	11.1	0	14	0.0	0	34	0.0

[1] The percentages given in these columns indicate the portions of people taking each course.